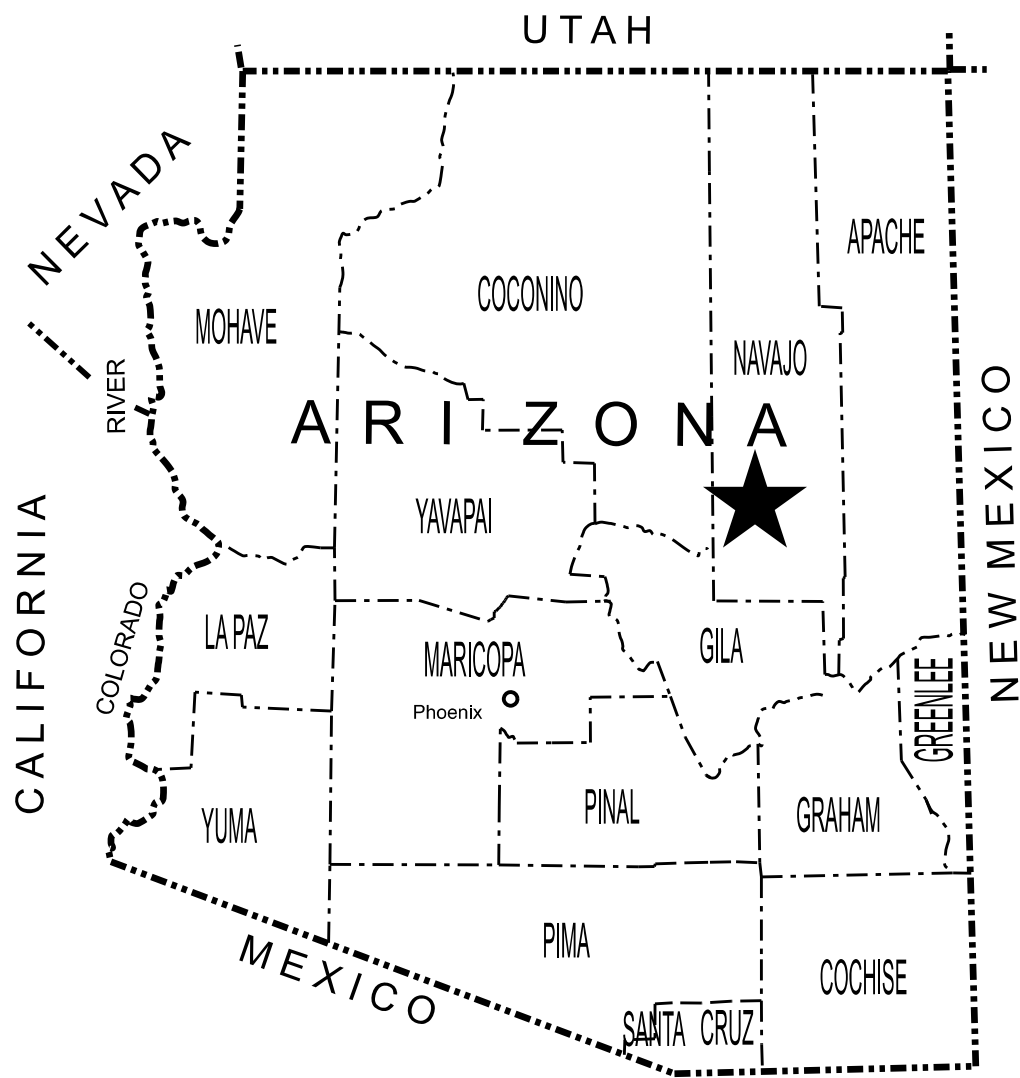
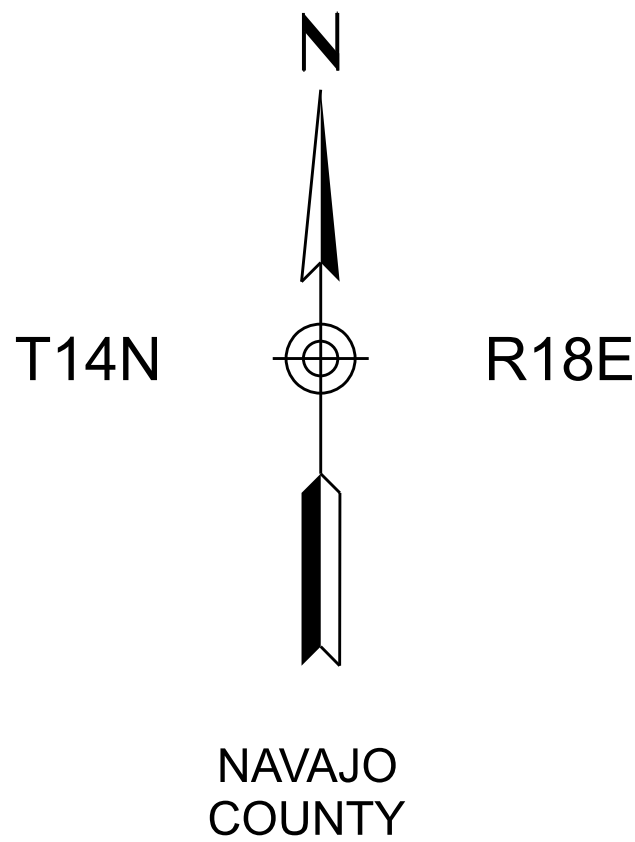




STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
PROJECT PLANS



STATE HIGHWAY
HEBER - HOLBROOK HWY
STATE ROUTE 377



MP8 - PHOENIX PARK WASH, S OF DRY LAKE
PROJECT NO. 377 NA 008 F0661 01C
FEDERAL AID NO. 377-A(203)T

Constructed by:

Construction Company

Completion Date

Red-Lines by:

Construction Administrator Name & Company

Completion Date

Record Drawings by:

Record Drawings Designer Name & Company

Completion Date

ARIZONA DEPARTMENT OF TRANSPORTATION
PROJECT DELIVERY AND OPERATIONS DIVISION
GREGORY BYRES, P.E., STATE ENGINEER

ADOT STANDARD DRAWINGS

CONSTRUCTION STANDARDS
EFFECTIVE MARCH 2025

DATE	STANDARD	SUBJECT TITLE
5/12	C-01.10 SH 1	SYMBOL LEGEND
5/12	C-01.10 SH 2	SYMBOL LEGEND
5/12	C-01.10 SH 3	SYMBOL LEGEND
5/12	C-01.10 SH 4	SYMBOL LEGEND
12/17	C-01.30 SH 1	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 2	GENERAL ABBREVIATIONS
5/12	C-01.30 SH 3	GENERAL ABBREVIATIONS
5/12	C-02.10	SLOPES, RURAL DIVIDED HIGHWAYS
5/12	C-02.20	SLOPES, RURAL UNDIVIDED AND FRINGE-URBAN HIGHWAYS
5/12	C-02.30	SLOPES, MISCELLANEOUS ROADWAYS
5/12	C-03.10 SH 1	DITCHES, CHANNELS, DIKES AND BERMS, DITCHES AND CHANNELS
5/12	C-03.10 SH 2	DITCHES, CHANNELS, DIKES AND BERMS, DIKES
5/12	C-03.10 SH 3	DITCHES, CHANNELS, DIKES AND BERMS, DITCH DIKE
5/12	C-03.10 SH 4	DITCHES, CHANNELS, DIKES AND BERMS, PIPE BERMS
5/12	C-03.10 SH 5	DITCHES, CHANNELS, DIKES AND BERMS, HEADWALL BERMS
12/17	C-04.10 SH 1	SPILLWAY, EMBANKMENT SINGLE INLET
12/17	C-04.10 SH 2	SPILLWAY, EMBANKMENT DOUBLE INLET
12/17	C-04.20 SH 1	DOWNDRAIN, EMBANKMENT SINGLE INLET
12/17	C-04.20 SH 2	DOWNDRAIN, EMBANKMENT DOUBLE INLET
12/17	C-04.30	SPILLWAY LENGTH TABLE
12/17	C-04.40	DOWNDRAIN LENGTH TABLE
5/12	C-04.50	DOWNDRAIN ENERGY DISSIPATOR
5/12	C-05.10	CURB & GUTTER, CURB, GUTTER
5/12	C-05.12 SH 1	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 2	CURB & GUTTER TRANSITIONS
5/12	C-05.12 SH 3	CURB AND GUTTER TRANSITIONS
5/12	C-05.20 SH 1	CONCRETE DRIVEWAYS & SIDEWALKS, DRIVEWAYS
5/12	C-05.20 SH 2	CONCRETE DRIVEWAYS & SIDEWALKS, SIDEWALKS
5/12	C-05.30 SH 1	SIDEWALK RAMP, TYPE A
5/12	C-05.30 SH 2	SIDEWALK RAMP, TYPE B
5/12	C-05.30 SH 3	SIDEWALK RAMP, TYPE C
5/12	C-05.30 SH 4	SIDEWALK RAMP, TYPE D
5/12	C-05.30 SH 5	SIDEWALK RAMP, TYPE E
5/12	C-05.30 SH 6	SIDEWALK RAMP, TYPE F
5/12	C-05.30 SH 7	SIDEWALK RAMP, DETECTABLE WARNING STRIP
5/12	C-05.40	MEDIAN PAVING AND NOSE TAPER
5/12	C-05.50	CONCRETE BUS BAY
5/12	C-06.10 SH 1	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-06.10 SH 2	DRIVEWAY & TURNOUT LAYOUTS
5/12	C-07.01 SH 1	PCCP JOINTS
5/12	C-07.01 SH 2	PCCP JOINTS
5/12	C-07.02	LOAD TRANSFER DOWEL ASSEMBLY
5/12	C-07.03 SH 1	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 2	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 3	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 4	PCCP JOINT LOCATIONS, MAINLINE SKEWED JOINTS
5/12	C-07.03 SH 5	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 6	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 7	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.03 SH 8	PCCP JOINT LOCATIONS, MAINLINE NON-SKEWED JOINTS
5/12	C-07.04 SH 1	PCCP JOINT LOCATIONS, PARALLEL-TYPE ENTRANCE RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 2	PCCP JOINT LOCATIONS, PARALLEL-TYPE EXIT RAMP WITH AUXILIARY LANE
5/12	C-07.04 SH 3	PCCP JOINT LOCATIONS, TAPER-TYPE ENTRANCE RAMP
5/12	C-07.04 SH 4	PCCP JOINT LOCATIONS, TAPER-TYPE EXIT RAMP
5/12	C-07.04 SH 5	PCCP JOINT LOCATIONS, CROSSROAD AND RAMP TERMINI
8/21	C-07.06	TRENCH BACKFILL AND PAVEMENT REPLACEMENT
5/12	C-08.20	PAVED GORE AREA
12/17	C-10.00	GUARDRAIL MEASUREMENT LIMITS
12/17	C-10.01	GUARDRAIL INSTALLATION
12/17	C-10.03	W-BEAM GUARDRAIL, MGS BLOCKED-OUT TIMBER POST
12/17	C-10.04	W-BEAM GUARDRAIL, MGS BLOCKED-OUT STEEL POST
12/17	C-10.05 SH 1	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.05 SH 2	W-BEAM GUARDRAIL (MODIFIED) WITH FREEWAY CURB AND GUTTER
12/17	C-10.06	W-BEAM GUARDRAIL LONG-SPAN
12/17	C-10.07 SH 1	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.07 SH 2	W-BEAM GUARDRAIL, BOX CULVERT GUARDRAIL POST
12/17	C-10.08 SH 1	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.08 SH 2	W-BEAM GUARDRAIL, END ANCHOR
12/17	C-10.09	GUARDRAIL POST ROCK INSTALLATION
4/19	C-10.20 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
4/19	C-10.20 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SOFTSTOP
4/19	C-10.21 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
4/19	C-10.21 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MSKT
4/19	C-10.22 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
4/19	C-10.22 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MAX-TENSION
4/21	C-10.23 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR SGET
4/21	C-10.23 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR SGET
3/25	C-10.24 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR NGT
3/25	C-10.24 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR NGT
11/19	C-10.26 SH 1	GUARDRAIL END TERMINAL PAD LAYOUT FOR MFLEAT
11/19	C-10.26 SH 2	GUARDRAIL END TERMINAL PAD LAYOUT FOR MFLEAT
12/17	C-10.30 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.30 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, TIMBER POST
12/17	C-10.31 SH 1	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.31 SH 2	GUARDRAIL TRANSITION TO CONCRETE BARRIER, STEEL POST
12/17	C-10.38 SH 1	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH STAGGERED POST
12/17	C-10.38 SH 2	GUARDRAIL TAPER G4 TO MGS W-BEAM WITH OFFSET RAIL
12/17	C-10.40	CONCRETE MEDIAN BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.41	CONCRETE MEDIAN BARRIER, 42" TYPE 'F', CAST-IN-PLACE
12/17	C-10.44 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.44 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=0"TO 26"
12/17	C-10.45 SH 1	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.45 SH 2	CONCRETE MEDIAN BARRIER, 42" TYPE 'F'WITH VARIABLE HEIGHT SIDES, H=26"TO 60"
12/17	C-10.50 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F', CAST-IN-PLACE
12/17	C-10.50 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F', PRECAST
12/17	C-10.51	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH SIDEWALK

DATE	STANDARD	SUBJECT TITLE
12/17	C-10.52	CONCRETE HALF BARRIER, 32" TYPE 'F' WITH GUTTER
12/17	C-10.53	CONCRETE HALF BARRIER, 42" TYPE 'F' WITH GUTTER
12/17	C-10.54 SH 1	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.54 SH 2	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.54 SH 3	CONCRETE HALF BARRIER, 32" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.55 SH 1	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, CAST-IN-PLACE
12/17	C-10.55 SH 2	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, PRECAST
12/17	C-10.55 SH 3	CONCRETE HALF BARRIER, 42" TYPE 'F' AT PIERS, LAYOUT
12/17	C-10.70 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.70 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CAISSONS
12/17	C-10.71 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.71 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 32" TYPE 'F' WITH CURB & GUTTER
12/17	C-10.72 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.72 SH 3	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH CAISSONS
12/17	C-10.73 SH 1	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.73 SH 2	CONCRETE HALF-BARRIER TRANSITION TO VERTICAL, 42" TO 32" TYPE 'F' WITH GUTTER
12/17	C-10.74	CONCRETE HALF-BARRIER TRANSITION, 42" TO 32" TYPE 'F'
12/17	C-10.75 SH 1	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 1
12/17	C-10.75 SH 2	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' TANGENT DEPARTURE TYPE 2
12/17	C-10.76	CONCRETE HALF-BARRIER TRANSITION, TYPE 'F' AT RADIUS, 32" TO 0"
4/19	C-10.77	CONCRETE BARRIER TRANSITION TO GUARDRAIL END TERMINAL LAYOUT WITH CURB
12/17	C-10.78	CONCRETE HALF-BARRIER TRANSITION, 32" TYPE 'F' LOW SPEED APPROACH
12/17	C-10.79	CONCRETE HALF-BARRIER TRANSITION, 42" TYPE 'F' TANGENT DEPARTURE
5/12	C-11.10 SH 1	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 2	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 3	ROADWAY CATTLE GUARD
5/12	C-11.10 SH 4	ROADWAY CATTLE GUARD
5/12	C-11.20	CATTLE GUARD, DRAINAGE
5/12	C-12.10 SH 1	FENCE, WOVEN WIRE
5/12	C-12.10 SH 2	FENCE, BARBED WIRE
5/12	C-12.10 SH 3	FENCE, TYPE 1 AND 2 GATES, FLOOD GATE
5/12	C-12.10 SH 4	FENCE, FLOOD GATE INSTALLATION
5/12	C-12.10 SH 5	FENCE, MISCELLANEOUS DETAILS
5/12	C-12.20 SH 1	FENCE, CHAIN LINK, TYPE 1
5/12	C-12.20 SH 2	FENCE, CHAIN LINK, TYPE 2
5/12	C-12.20 SH 3	FENCE, CHAIN LINK, GATES
5/12	C-12.30 SH 1	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 2	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-12.30 SH 3	FENCE, CHAIN LINK CABLE BARRIER
5/12	C-13.10 SH 1	PIPE CULVERT INSTALLATION
5/12	C-13.10 SH 2	PIPE CULVERT INSTALLATION
8/23	C-13.15	TYPICAL PIPE INSTALLATION
5/12	C-13.20	PIPE, REINFORCED CONCRETE END SECTION
5/12	C-13.25	PIPE, CORRUGATED METAL END SECTION
5/12	C-13.30	PIPE AND PIPE ARCH, CORRUGATED METAL, CONCRETE INVERT PAVING
5/12	C-13.55	PIPE, CATTLE-VEHICLE PASS, MITERED END TREATMENT
5/12	C-13.60	SLOTTED DRAIN DETAILS
5/12	C-13.65	SLOTTED DRAIN INSTALLATION DETAILS
5/12	C-13.70	STORM DRAIN CONNECTION DETAILS
5/12	C-13.75	STORM DRAIN OUTLET BARRIER GATE
5/12	C-13.76	STORM DRAIN OUTLET AND STORM DRAIN PLUG
5/12	C-13.80	PIPE COLLAR DETAILS
5/12	C-15.10	CATCH BASIN, TYPE 1
5/12	C-15.20 SH 1	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 2	CATCH BASIN, TYPE 3
5/12	C-15.20 SH 3	CATCH BASIN, ACCESS FRAME AND COVER DETAILS
5/12	C-15.30	CATCH BASIN, TYPE 4
5/12	C-15.40 SH 1	CATCH BASIN, TYPE 5
5/12	C-15.40 SH 2	CATCH BASIN, TYPE 5
5/12	C-15.50	CATCH BASIN, FRAME AND GRATE
5/12	C-15.70 SH 1	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.70 SH 2	CATCH BASIN, MISCELLANEOUS DETAILS
5/12	C-15.75	CATCH BASIN, DROP INLET
5/12	C-15.80	CATCH BASIN, FLUSH
5/12	C-15.81	CATCH BASIN, SIDE SLOPE
5/12	C-15.90	CATCH BASIN, MEDIAN DIKE, PRECAST
5/12	C-15.91 SH 1	FREEWAY CATCH BASIN DETAILS
5/12	C-15.91 SH 2	FREEWAY CATCH BASIN DETAILS
5/12	C-15.92 SH 1	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-15.92 SH 2	CATCH BASIN WITH TYPE 'F' CONCRETE HALF BARRIER
5/12	C-16.40	IRRIGATION SLEEVES
5/12	C-17.10	RAIL BANK PROTECTION FOR DRAINAGEWAYS, TYPES 1, 2 & 3
5/12	C-17.15	RAIL BANK PROTECTION AT ABUTMENTS, TYPES 4, 5 & 6
5/12	C-17.20	RAIL BANK PROTECTION FOR DRAINAGEWAYS, TYPES 7, 8 & 9
5/12	C-18.10 SH 1	MANHOLE, RISER DETAILS
5/12	C-18.10 SH 2	MANHOLE, BASE DETAILS, NORMAL INSTALLATION
5/12	C-18.10 SH 3	MANHOLE, FRAME AND COVER DETAILS
5/12	C-19.10 SH 1	FORD, CONCRETE WALLS
5/12	C-19.10 SH 2	FORD, TYPES 1 AND 2
5/12	C-21.10	SURVEY MONUMENT FRAME AND COVER
5/12	C-21.20	SURVEY MARKER

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
CONSTRUCTION STANDARDS		NAME	DATE
PROJECT NO.		E. EGGEN	04/2025
377 NA 008 F0661 01C		1A	OF 48
RECORD DRAWING DATA	FEDERAL ID NO. 377-A(203)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS

TRAFFIC SIGNING & MARKING STANDARDS

(SHEET 1 OF 2)

EFFECTIVE APRIL 2025

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	M-1	CURB MARKINGS FOR RAISED MEDIAN AND ISLANDS
1/20	M-2 SHT 1	INTERSECTION STRIPING
5/15	M-2 SHT 2	INTERSECTION STRIPING (TWO-LANE RURAL)
6/14	M-2 SHT 3	CENTERLINE AND REVERSE CURVE DETAILS
6/14	M-3	STRIPING AND DELINEATION FOR FREEWAY TERMINALS
6/14	M-4	PASSING LANE STRIPING DETAILS
6/14	M-5	RAILROAD PAVEMENT MARKINGS
6/14	M-6	WORD MARKINGS
6/14	M-7	PAVEMENT LETTERS
6/14	M-8	PAVEMENT LETTERS
6/14	M-9	PAVEMENT NUMBERS
6/14	M-10 SHT 1	PAVEMENT MARKING SYMBOLS
6/14	M-10 SHT 2	PAVEMENT MARKING SYMBOLS
6/14	M-10 SHT 3	PAVEMENT MARKING SYMBOLS
6/14	M-11	TURN LANE PAVEMENT MARKINGS
6/14	M-12	WRONG-WAY ARROWS
1/19	M-13	PREFERENTIAL LANE PAVEMENT MARKINGS
6/14	M-14	STRIPING AND DELINEATION FOR TRUCK ESCAPE RAMPS
8/20	M-15 SHT 1	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - TAPERED ACCELERATION LANE
8/20	M-15 SHT 2	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE
8/20	M-15 SHT 3	PAVEMENT MARKING FOR FREEWAY ENTRANCE RAMP - PARALLEL ACCELERATION LANE WITH HOV BYPASS
6/14	M-15 SHT 4	PAVEMENT MARKING FOR FREEWAY PARALLEL - ACCELERATION LANE
8/20	M-16 SHT 1	PAVEMENT MARKING FOR FREEWAY EXIT RAMPS - TAPERED DECELERATION LANE
8/20	M-16 SHT 2	PAVEMENT MARKING FOR FREEWAY EXIT RAMP - PARALLEL DECELERATION LANE
8/20	M-17	FREEWAY LANE DROP PAVEMENT MARKINGS
11/24	M-19 SHT 1	RAISED PAVEMENT MARKER PLAN LEGEND
6/14	M-19 SHT 2	NON-REFLECTIVE RAISED PAVEMENT MARKER DETAILS
11/24	M-19 SHT 3	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
11/24	M-19 SHT 4	RETROREFLECTIVE RAISED PAVEMENT MARKER DETAILS
5/15	M-19 SHT 5	PAVEMENT MARKING DETAILS FOR UNDIVIDED HIGHWAYS
6/14	M-19 SHT 6	RETROREFLECTIVE RAISED PAVEMENT MARKERS (RPM) FOR UNDIVIDED HIGHWAYS
8/20	M-19 SHT 7	FREEWAY AND DIVIDED HIGHWAY EDGE LINE AND LANE STRIPING
5/15	M-19 SHT 8	LANE DROP MARKING AND RAMP OR INTERSECTION GUIDE STRIPING
8/20	M-19 SHT 9	PAVEMENT MARKING CROSS-SECTION DETAILS FOR HIGHWAYS AND FREEWAYS
6/24	M-19 SHT 10	CONTRAST LANE LINE FOR FREEWAY AND DIVIDED HIGHWAY
10/23	M-19 SHT 11	LEAD-LAG CONTRAST PAVEMENT MARKINGS FOR CONCRETE PAVEMENT

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	M-20 SHT 1	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-20 SHT 2	CHIP SEAL MARKER USAGE FOR TEMPORARY MARKERS
6/14	M-21	TRANSVERSE RUMBLE STRIP DETAILS
9/21	M-22 SHT 1	LONGITUDINAL RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
9/21	M-22 SHT 2	LONGITUDINAL RUMBLE STRIP EXCEPTION DETAILS
9/21	M-22 SHT 3	ENTRANCE AND EXIT RAMPS RUMBLE STRIP INSTALLATION DETAILS
3/22	M-22 SHT 4	CENTERLINE RUMBLE STRIP GROOVE, PATTERN - AND LOCATION DETAILS
6/14	M-23	OBJECT MARKER DETAILS
6/14	M-24	OBJECT MARKER PLACEMENT DETAILS
2/21	M-26 SHT 1	DELINEATOR PLACEMENT AND SPACING
2/21	M-26 SHT 2	DELINEATOR PLACEMENT AND SPACING
2/21	M-26 SHT 3	FLEXIBLE DELINEATOR ASSEMBLIES
2/21	M-26 SHT 4	SQUARE STEEL POST DELINEATOR
2/21	M-26 SHT 5	DELINEATOR FOUNDATION DETAILS
2/21	M-27 SHT 1	DELINEATION DETAILS FOR MEDIAN CROSSTOVERS
2/21	M-27 SHT 2	DELINEATION DETAILS FOR MEDIAN CROSSTOVERS
6/14	M-29	OFF- MAINLINE REFERENCE MARKER LOCATION DETAIL
6/14	M-30	OFF- MAINLINE REFERENCE MARKER DETAILS
6/14	M-32	BRIDGE AND BARRIER MARKER DETAILS
6/14	M-33	BRIDGE AND BARRIER MARKER PLACEMENT AND INSTALLATION DETAILS
6/14	M-34	GUARDRAIL END TERMINAL DELINEATION DETAILS
6/14	M-35	OBJECT MARKER FOR SAND BARREL CRASH CUSHION

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME Tammy R. Mivshek	DATE May 2025
PROJECT NO. 377 NA 008 F0661 01C		1B-1	OF 48
RECORD DRAWING DATA	FEDERAL ID NO. 377-A(203)T	REC. DWG. DATE	OF

ADOT STANDARD DRAWINGS

TRAFFIC SIGNING & MARKING STANDARDS

(SHEET 2 OF 2)

EFFECTIVE APRIL 2025

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
4/19	S-1 SHT 1	GENERAL SIGNING NOTES
6/14	S-2 SHT 1	S & W BREAKAWAY POST SELECTION CHART
6/14	S-2 SHT 2	S & W BREAKAWAY POST INSTALLATION DETAILS
6/14	S-3 SHT 1	FLAT SHEET SIGNS SQUARE TUBE POST GENERAL NOTES
6/14	S-3 SHT 2	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 12, 18 AND 24 INCH WIDTHS
6/14	S-3 SHT 3	SINGLE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 30, 36, 42 AND 54 INCH WIDTHS
6/14	S-3 SHT 4	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 36, 42 AND 48 INCH WIDTHS
6/14	S-3 SHT 5	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 54, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 6	TWO POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 7	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 48, 60 AND 72 INCH WIDTHS
6/14	S-3 SHT 8	THREE POST FLAT SHEET RECTANGULAR SIGN ASSEMBLY - 84 - 144 INCH WIDTHS
6/14	S-3 SHT 9	WARNING SIGN ASSEMBLY - SINGLE POST
6/14	S-3 SHT 10	WARNING SIGN ASSEMBLY - TWO POST
6/14	S-3 SHT 11	WARNING SIGN ASSEMBLY - THREE POST
6/14	S-3 SHT 12	MULTIPLE ROUTE MARKER ASSEMBLIES
6/14	S-3 SHT 13	SPECIAL SIGN ASSEMBLIES
6/14	S-3 SHT 14	STRINGER DETAILS FOR SQUARE TUBE POSTS
6/14	S-3 SHT 15	SQUARE TUBE SIGN POST FOUNDATION
6/14	S-3 SHT 16	SQUARE TUBE POST SLIP BASE DETAILS
6/14	S-4	W SHAPE BREAKAWAY POST FUSE PLATE AND HINGE DETAILS
6/22	S-5	W SHAPE BREAKAWAY POST DETAILS
6/22	S-6	S4x7.7 BREAKAWAY POST DETAILS
6/14	S-7 SHT 1	ALUMINUM EXTRUSION SIGN PANEL DETAILS
6/14	S-7 SHT 2	ALUMINUM EXTRUSION AUXILIARY SIGN INSTALLATION DETAILS
5/15	S-7 SHT 3	ALUMINUM EXTRUSION EXIT PANEL INSTALLATION DETAIL
6/14	S-8 SHT 1	FLAT SHEET ALUMINUM PANEL ON BREAKAWAY POSTS INSTALLATION DETAIL
6/14	S-8 SHT 2	ALUMINUM EXTRUSION SIGN TO PERFORATED POSTS INSTALLATION DETAIL
8/22	S-9 SHT 1	SIGN INSTALLATION ON POLE
8/22	S-9 SHT 2	SIGNS (BACK TO BACK) INSTALLATION ON POLE
8/22	S-9 SHT 3	SIGN INSTALLATION ON SIGNAL POLE
8/22	S-9 SHT 4	SIGN INSTALLATION ON POLE BAND-TYPE CLAMP
6/14	S-10	MILEPOST AND REFERENCE LOCATION SIGNS
11/22	S-11 SHT 1	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM
4/19	S-11 SHT 2	TAPERED TUBE SIGN STRUCTURE SINGLE BEAM POST AND BEAM DETAILS

REVISION DATE	STANDARD NUMBER	SUBJECT : SIGNING AND MARKING DETAILS
6/14	S-12 SHT 1	TYPE A, B, AND DOWN ARROWS
6/14	S-12 SHT 2	TYPE C AND D ARROWS
6/14	S-12 SHT 3	C2 ARROW DETAIL
6/14	S-13	SIGN IDENTIFICATION DETAILS
6/14	S-14 SHT 1	ROTATING OPEN/CLOSED SIGN
6/14	S-14 SHT 2	ROTATING OPEN/CLOSED SIGN DETAILS
6/14	S-14 SHT 3	ROTATING OPEN/CLOSED SIGN MOUNTING DETAILS
6/14	S-15 SHT 1	FOLDING RECTANGULAR SIGN ASSEMBLY
6/14	S-15 SHT 2	FOLDING RECTANGULAR SIGN OPERATION
6/14	S-15 SHT 3	FOLDING DIAMOND SIGN ASSEMBLY
4/19	S-16 SHT 1	TEMPORARY WOOD POSTS
4/19	S-16 SHT 2	TEMPORARY WOOD POSTS SELECTION CHART
6/14	S-17	END OF ROAD BARRICADE
7/19	S-18 SHT 1	ALUMINUM GRAFFITI SHIELD EXIT AND GUIDE SIGN ASSEMBLY
7/19	S-18 SHT 2	ALUMINUM GRAFFITI SHIELD RIGHT RIDER SIDE PANEL
7/19	S-18 SHT 3	ALUMINUM GRAFFITI SHIELD LEFT RIDER SIDE PANEL
7/19	S-18 SHT 4	ALUMINUM GRAFFITI SHIELD CORNER
7/19	S-18 SHT 5	ALUMINUM GRAFFITI SHIELD SPLICE PLATE
7/19	S-18 SHT 6	ALUMINUM GRAFFITI SHIELD FIN
7/19	S-18 SHT 7	ALUMINUM GRAFFITI SHIELD TOP PANEL
7/19	S-18 SHT 8	ALUMINUM GRAFFITI SHIELD SIDE PANEL
7/19	S-18 SHT 9	ALUMINUM GRAFFITI SHIELD RIGHT TRANSITION FROM RIDER
7/19	S-18 SHT 10	ALUMINUM GRAFFITI SHIELD LEFT TRANSITION FROM RIDER
7/19	S-18 SHT 11	ALUMINUM GRAFFITI SHIELD SPLICE PLATE FOR FIN
12/18	C-1	SAND BARREL CRASH CUSHION
12/18	C-2	SAND BARREL CRASH CUSHION TYPICAL INSTALLATION
6/14	C-3 SHT 1	PRECAST CONCRETE BARRIER STRUCTURAL DETAILS
6/14	C-3 SHT 2	PRECAST CONCRETE BARRIER PIN AND LOOP ASSEMBLY
6/14	C-4 SHT 1	MEDIAN CROSSOVER
6/14	C-4 SHT 2	TYPICAL END TREATMENTS FOR DETOURS USING TEMPORARY CONCRETE BARRIER (TCB)
6/14	C-5 SHT 1	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER
6/14	C-5 SHT 2	APPROACH PLATE AND TRANSITION SECTION FOR TEMPORARY CONCRETE BARRIER

ADOT STANDARD DRAWINGS REVISION DATES and STANDARD NO.'s REVIEW			
SIGNING & MARKING STANDARDS		NAME Tammy R. Mivshek	DATE May 2025
PROJECT NO. 377 NA 008 F0661 01C		1B-2	OF 48
RECORD DRAWING DATA	FEDERAL ID NO. 377-A(203)T	REC. DWG. DATE	OF

1. **SPILL PREVENTION, CONTROL, AND COUNTERMEASURES – CWA SECTION 311**

If total above-ground storage capacity, including mobile re-fuelers stationed on-site, is greater than 1,320 gallons of oil (oils, greases, fuel, asphalt, and asphalt derivatives), where a spill has the potential to reach Waters of the US, the Contractor shall prepare a SPCC plan per contract specifications in Section 104.16 (C) of the Standard Specifications.

2. **SURFACE WATER POLLUTION PREVENTION – CWA SECTION 402**

☒ Arizona Pollutant Discharge Elimination System (AZPDES) CGP coverage applies (104SWDEQ needed)

3. **WORK IN WATERS OF THE UNITED STATES – CWA SECTION 404/401**

☒ No Permit Required; Refer to Section 104.16 (D) of the Standard Specifications for General Requirements

4. **BIOLOGY PROGRAM – ESA SECTION 7; MBTA, ARIZONA REVISED STATUTES TITLE 17**

BIO-1: Environmental Awareness, Monitoring and Avoidance ☒ N/A

BIO-2: Migratory Bird Treaty Act (MBTA) ☐ N/A

The contractor shall avoid nests with relocation directions.

BIO-2A: General Seasonal Restrictions for MBTA, refer to seasonal dates in EPIC and general requirements in 104.16(E) of the Standard Specifications.

If construction occurs during the migratory bird breeding season: March 1 to August 31 refer to Section 104.16 BIO-2 of the specifications for direction.

BIO-2D: MBTA – Active Cliff Swallow Nests ☒ N/A

BIO-3: Burrowing Owls ☒ N/A

BIO-4: Bats ☒ N/A

BIO-5: Sonoran Desert Tortoise ☒ No ☐ Yes

5. **VEGETATION PROTECTION PROGRAM – CWA SECTION 402, EO 13122**

General (applies to all projects); The contractor shall comply with the requirements specified in Section 104.16 (F) of the Special Provisions and Section 104.16 (B) of the Standard Specifications.

☒ Noxious Species Control Plan (NSCP) required

6. **CULTURAL RESOURCES PROGRAM**

☐ No Cultural Resources Program Action Required; See Std. Spec. 107.05 and 107.06 for General Requirements

☒ **Flagging** needed for cultural resources, contact Environmental Planning at least ten (10) business days prior to ground disturbing activities for pre-construction coordination. Refer to Section 10 of the EPIC Sheet and Section 104.17 of the Special Provisions for detailed instructions.

☒ **Qualified Monitor** needed, contact Environmental Planning at least ten (10) business days prior to ground disturbing activities. Pre-construction coordination required with qualified archaeologist regarding construction schedule and associated monitoring efforts.

☐ **Avoid** all flagged and/or otherwise designated sensitive resource areas within or adjacent to the project area as indicated on plan sheets and/or in Section 10 of the EPIC Sheet.

☐ **Data recovery** needed, contact Environmental Planning at least thirty (30) business days prior to ground disturbing activities to confirm ADOT has completed all data recovery activities and requirements.

7. **HAZARDOUS MATERIALS PROGRAM**

General (applies to all projects); See Std. Spec. 107.07 for General Requirements.

☐ No Hazardous Materials Program Action Required

Is Asbestos present? ☒ No ☐ Yes

Is a NESHAP notice required? ☒ No ☐ Yes

Is Lead-based paint present? ☐ No ☒ Yes

Is a Lead Based Paint Abatement Plan needed? ☐ No ☒ Yes ☐ Other

Refer to Section 10 of the EPIC Sheet for Lead Based Paint information and contact ADOT Hazardous Materials Specialist.

8. **NOISE PROGRAM**

☒ No Noise Program Specific Project Action Required; See Std. Spec. 104.08 for General Requirements

9. **AIR QUALITY PROGRAM**

☒ No Air Quality Program Action Required; See Std. Spec. 104.08 for General Requirements

10. **OTHER ENVIRONMENTAL ISSUES**

Project Specific Environmental Commitments: ☐ N/A

Contractor Responsibilities

- No ground disturbing activities shall take place within the following designated sensitive cultural resource areas without the presence of a qualified archaeological monitor:
 - MP 12.57 to MP 12.62 east and west bound
 - MP 12.88 to MP 13.00 east and west bound
- The contractor shall contact the ADOT Environmental Planning Historic Preservation Team project lead (602.291.8540) or the Environmental Commitments Coordinator (520.449.1985) at least 10 (ten) business days prior to the start commencement of work to ensure compliance with avoidance areas such as archaeological flagging and monitoring.
- The Contractor shall coordinate with the qualified archaeological consultant and communicate the construction schedule for the duration of ground disturbing work in those areas where monitoring is needed.
- The contractor will contact the Arizona Department of Transportation Environmental Planning (602.712.7767) at least ten (10) working days prior to the commencement of work to ensure compliance with avoidance areas.
- For yellow striping paint obliteration: Prior to beginning any work, an approved contractor shall develop and implement a Lead-Based Paint Removal and Abatement Plan for the removal of the lead-based paint, Toxicity Characteristic Leaching Procedure testing of the generated waste stream, and proper disposal of the waste stream derived from the removal of the yellow striping paint within the project limits. The contractor shall select a lead abatement contractor that meets the qualification requirements specified within the special provisions and as approval by the Engineer. The contractor shall follow all applicable federal, state, and local codes and regulations, including Arizona Department of Transportation Standard Specifications for Road and Bridge Construction (2021 Edition), related to the treatment and handling of lead-based paint. The contractor shall submit the Lead-Based Paint Removal and Abatement Plan to the Engineer and the ADOT Environmental Planning Hazardous Materials Coordinator (602.920.3882 or 602.712.7767) for review and approval at least 10 (ten) working days prior to beginning obliteration of the yellow striping paint.
- Visible fugitive dust emissions from paint removal shall be controlled through wet or dry (e.g., vacuum) means during the removal process. If the liquid waste stream generated by a water-blasting obliteration method passes the Toxicity Characteristic Leaching Process analysis, it may be used as a dust palliative or for compaction on the project. If the water is not used on the project, it shall be properly disposed of in accordance with all applicable federal, state, and local regulations.

Arizona Department of Transportation Environmental Planning Standard Template			
Environmental, Permits, Issues, And Commitments (EPIC) Sheet			
Environmental Planner Name	Cindy Robles Trejo	R.E. Name	
Environmental Planning Date of Completion	2/25/2025	R.E. Signature	
FEDERAL ID NO.	377-A(203)T		
PROJECT NO.	377 NA 008 F0661 01C		
REC DWG DATE: _____ OF _____		With the above signature, the R.E. attests that all EPIC work for this project has been satisfactorily completed.	
		1F .OF 48	Sheet 1F

INDEX OF SHEETS

Sheet No.	Sheet Type
1	Face Sheet
1A-1B	ADOT Standard Drawings
1F	EPIC Sheet
2-3	Design Sheet, Index, & Sections
4	Pipe Summary Sheet
5-23	Details
24-34	Plan & Staking Sheets
35-44	Pavement Marking & Signing Sheets
45-48	Roadside Development

GENERAL NOTES

The roadway plans have been designed utilizing the Construction Standard Drawings (C- Series) and current revisions. Refer to the 1A sheet for a listing of current revision dates.

The project roadway shall be striped by the contractor in accordance with the current edition of the Signing and Marking Standard Drawings (M&S-Series) and the pavement marking plans.

Pavement lift thickness is nominal.

The average project elevation is 5897'.

GENERAL NOTES (CONT.)

New Right of Way is not required.

For R/W information not shown, see Right-of-Way project No. F-069-1-603.

The pavement shoulders and centerline shall be treated with a rumble strip: see Traffic sheets.

Project plans have been developed utilizing alignment and survey control from survey LS1451.

Where only the horizontal location of an existing utility is shown, the location is approximate. Where both the horizontal and vertical location of an existing utility is shown, the location has been verified by field survey methods. The contractor shall comply with all current Arizona 811 laws and Subection 107.15 of the specifications.

REFERENCES

STP-377-A-(1)P, F-069-1-603, H586301C, H621001C, H893001C, HHS-069-1(1)

MIDPOINT OF PROJECT

Eastern Zone
State Plane Coordinates
X=432,000
Y=1,308,000

DESIGN DATA

2022 AADT = 3,665
2042 AADT = 6,231
Design Speed = 70 MPH

LENGTH OF PROJECT

SR 377 Survey ±
MP 8.00 to 13.00
Sta 523+50.00 to 731+24.48 = 20,774.48'
Sta 731+24.48 to 731+62.73 = 38.25' (PE)
Sta 731+62.73 to 788+00.00 = 5,637.37'
Gross Length = 26,450.00'
Net Length = 26,411.75'

EARTHWORK QUANTITIES

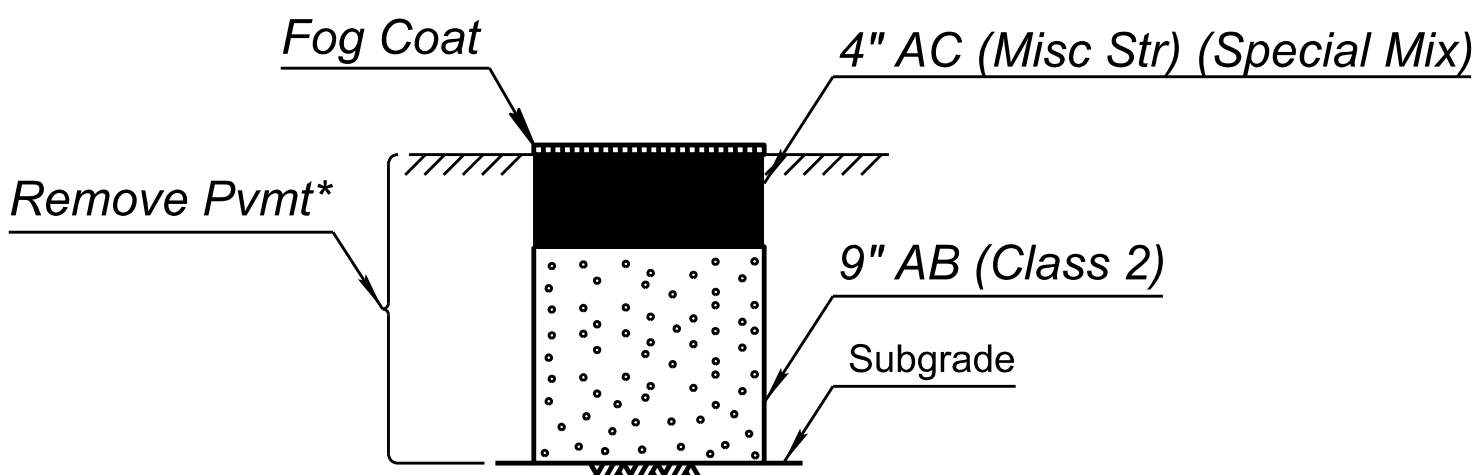
Roadway Excavation	74,166 CY
Shrink	3152 CY
Pipe Excavation	1469 CY
Drainage Excavation	24 CY
Rip Rap Excavation	348 CY
Over Excavation*	24,226 CY
Pipe Backfill**	648 CY
Embankment (Incl Gnd Comp)	7,163 CY
Berms	134 CY
Waste	65558 CY

* Over-excavation is paid under item No. 2030302
Fill material for over-excavation is assumed to be generated from project excavation.

** Pipe backfill is assumed to be imported material

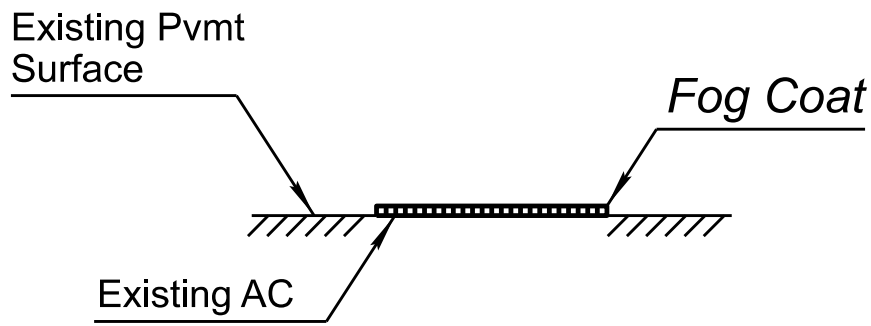
EARTHWORK FACTORS

Station	Shrink/Swell	Gmd Comp
SR 377 Sta 523+50 to 788+00	10% Shrink	0.1'



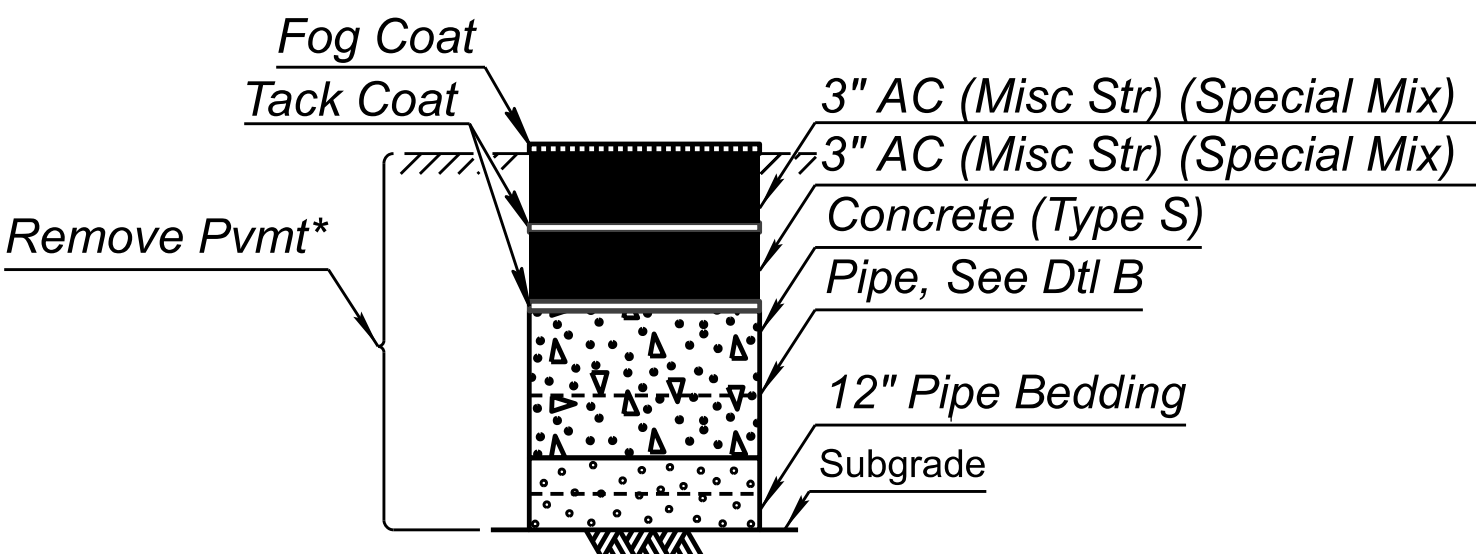
Total Thickness = 13"
Shoulders, Turnouts

SECTION NO. 1



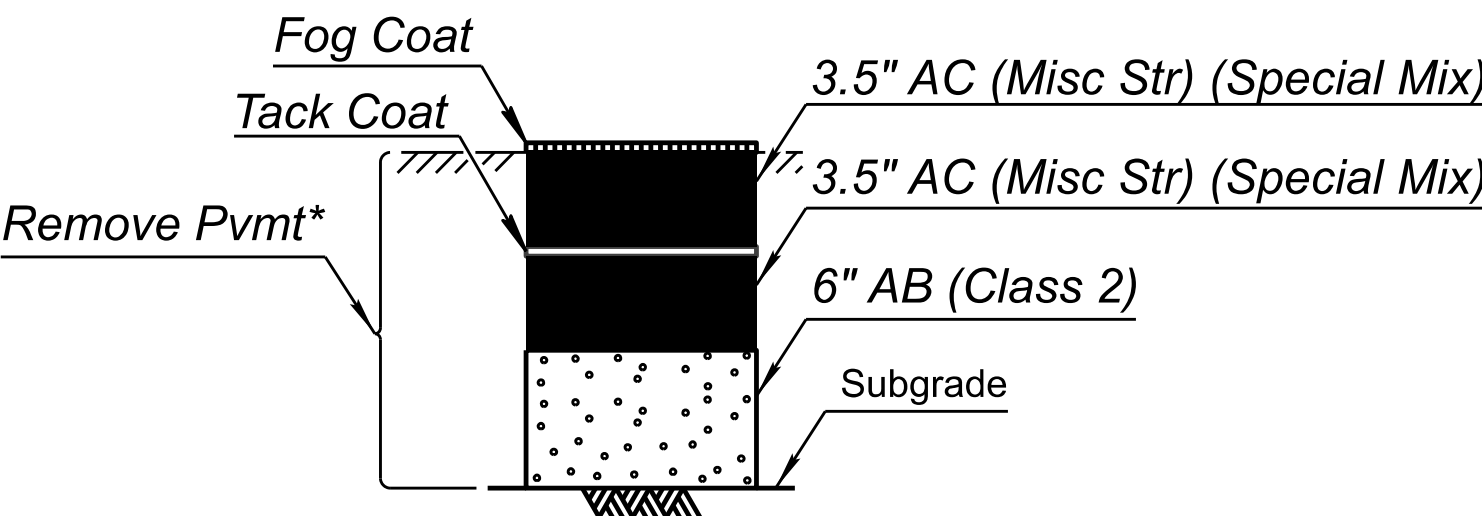
Total Thickness = Nominal
Existing Travel Lanes

SECTION NO. 2



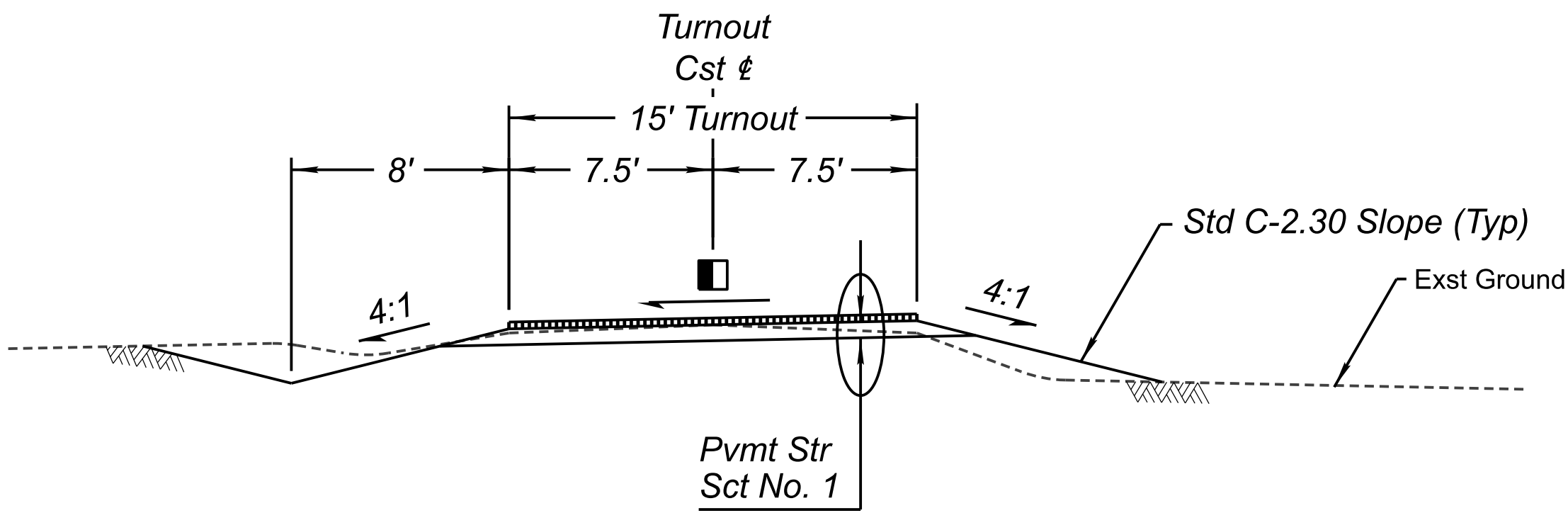
Total Thickness Varies, See Dtl B
Pipe Runs With Encasement

SECTION NO. 3



Total Thickness = 13"
Pipe Runs Without Encasement

SECTION NO. 4



TYPICAL SECTION

See Turnout Detail Sheet

* Full Depth Removal Within Sawcut Limits,
Paid for Under Item No. 2030301

Turnout cross slopes shall match existing pavement edge
and vary evenly to existing ground slope over turnout length.



	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DESIGN SHEET

ROUTE
SR 377

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE
ARIZ.

PROJECT NO.
377 NA 008

FEDERAL ID NO.
377-A(203)T

SHEET
NO.

TOTAL
SHEETS

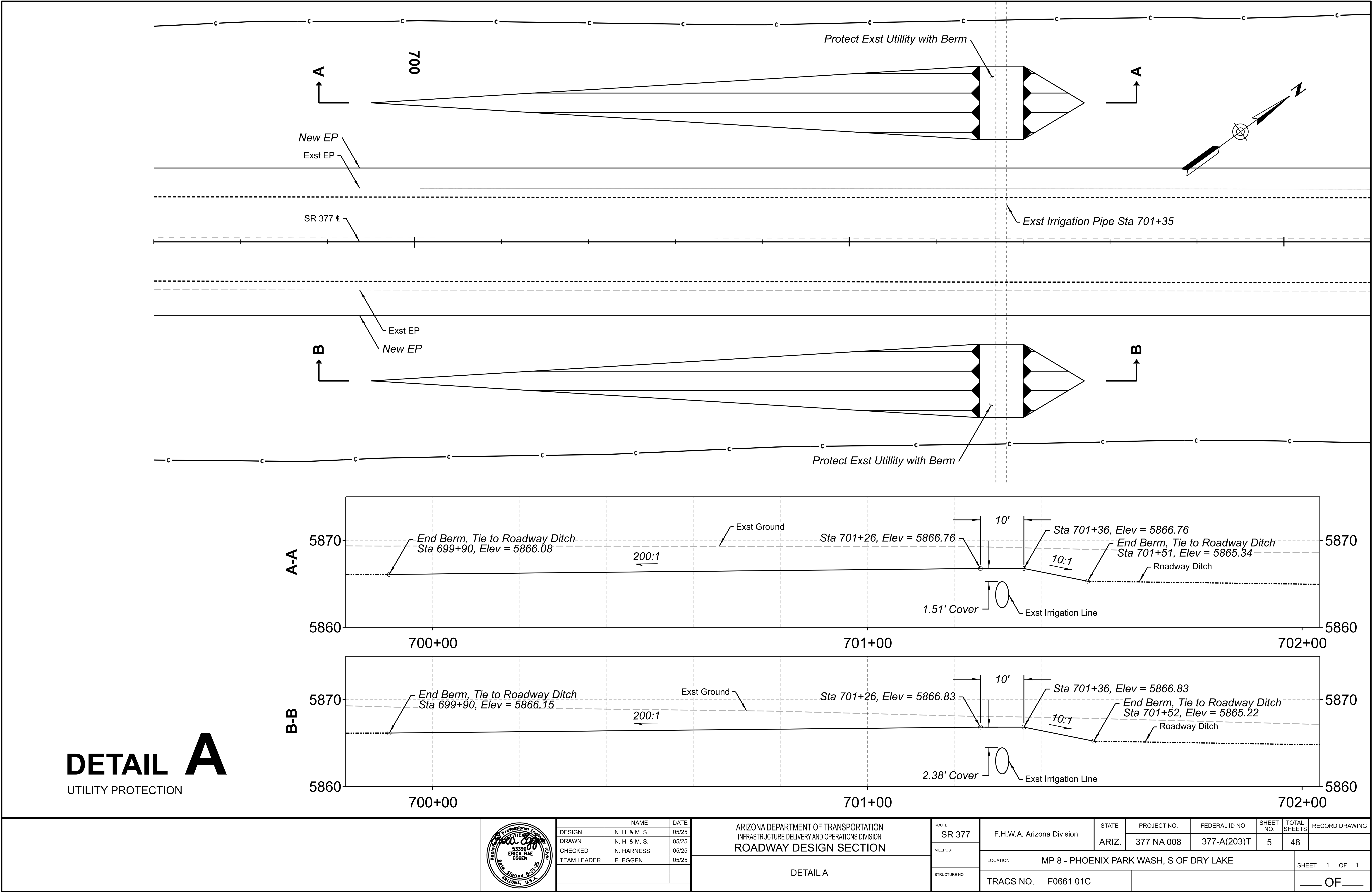
RECORD
DRAWING

LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

TRACS NO. F0661 01C

SHEET 1 OF 2

OF



DETAIL A
UTILITY PROTECTION



	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL A

ROUTE
SR 377

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE
ARIZ.

PROJECT NO.
377 NA 008

FEDERAL ID NO.
377-A(203)T

SHEET NO.
5

TOTAL SHEETS
48

RECORD DRAWING

LOCATION
MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

TRACS NO. F0661 01C

SHEET 1 OF 1

OF

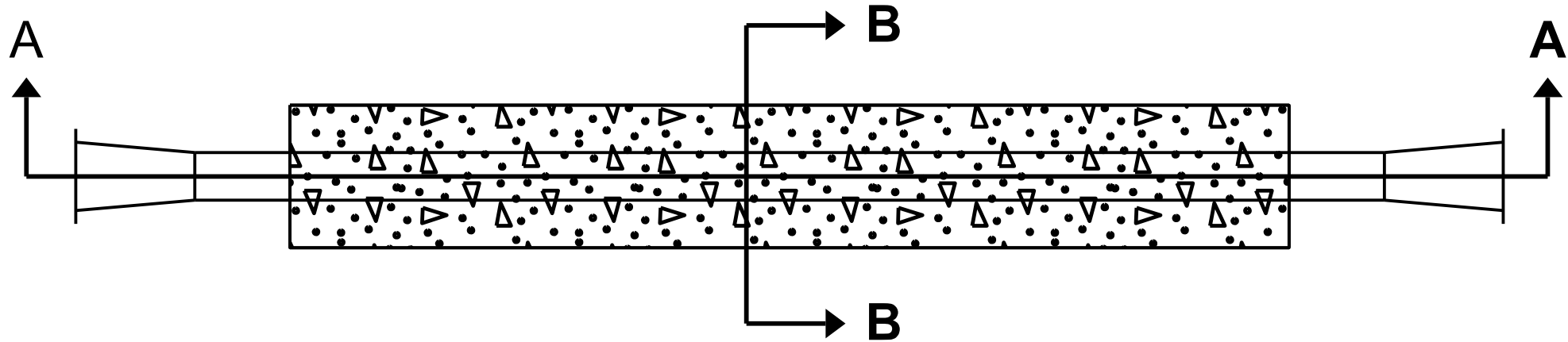
GENERAL NOTES

6 inches except when in unyielding or unstable material. See Std Specs.

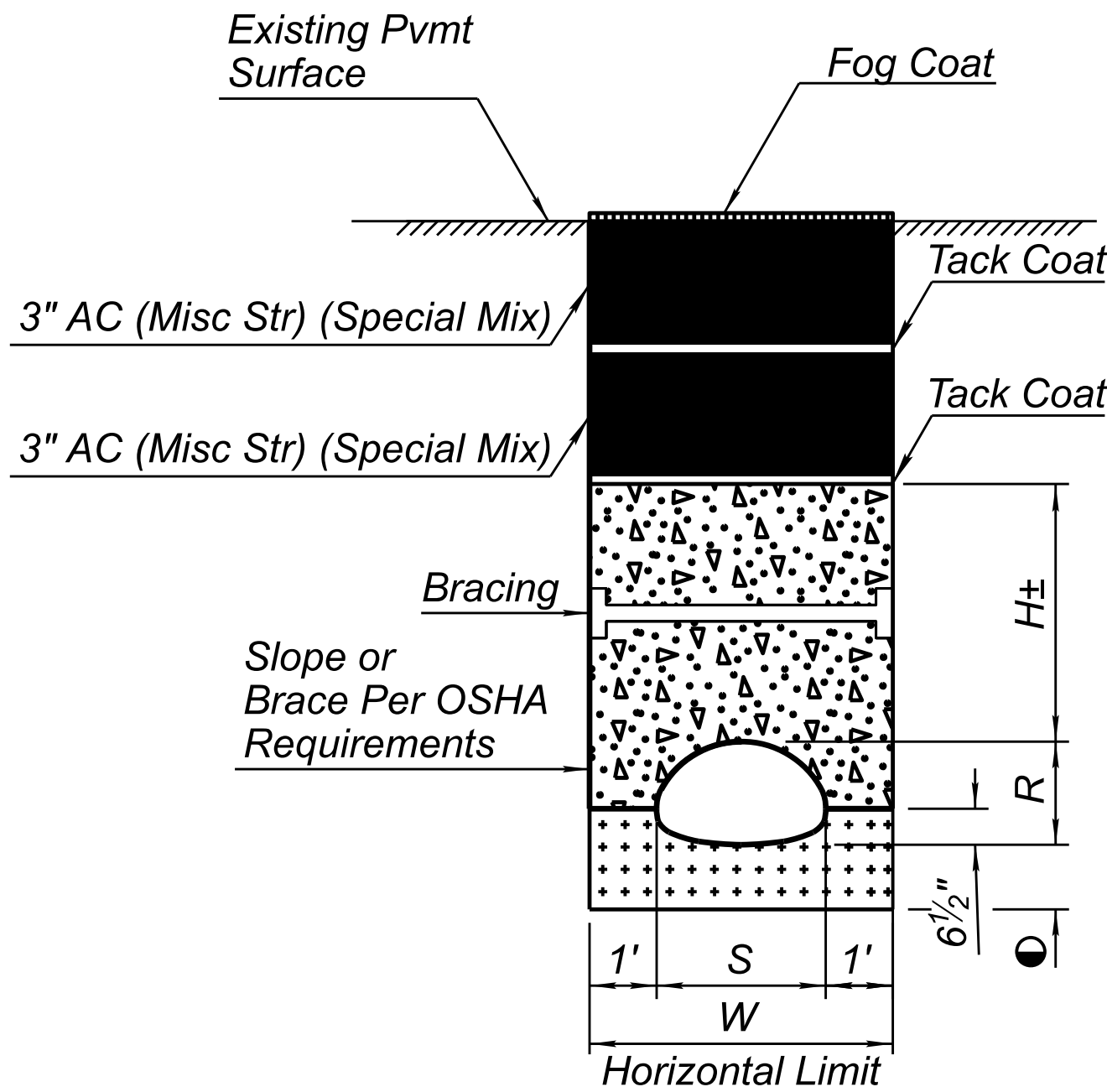
Concrete (Type S) (4,000 psi)

Bedding

PIPE SUMMARY								
Plan Ref. Number	SR 377 Station	Qty. Pipes	W (Ft)	S (Ft)	R (Ft)	H (Ft)	Encasement Length (Ft)	Concrete Type S Cu. Yd.
D01	532+81.47	2	10'	2.33'	1.67'	1.08'	40.0	28.3
D02	577+34.63	1	5'	2.33'	1.67'	0.78'	40.0	11.9
D03	687+83.85	1	8'	2.33'	1.67'	0.98'	40.0	21.5
D04	710+26.02	1	8'	2.33'	1.67'	0.88'	40.0	20.3
D05	755+46.57	1	7'	2.33'	1.67'	0.78'	40.0	16.7
D07a	779+28.44	2	16'	4.08'	3.58'	1.13'	40.0	46.5
Total								145.2

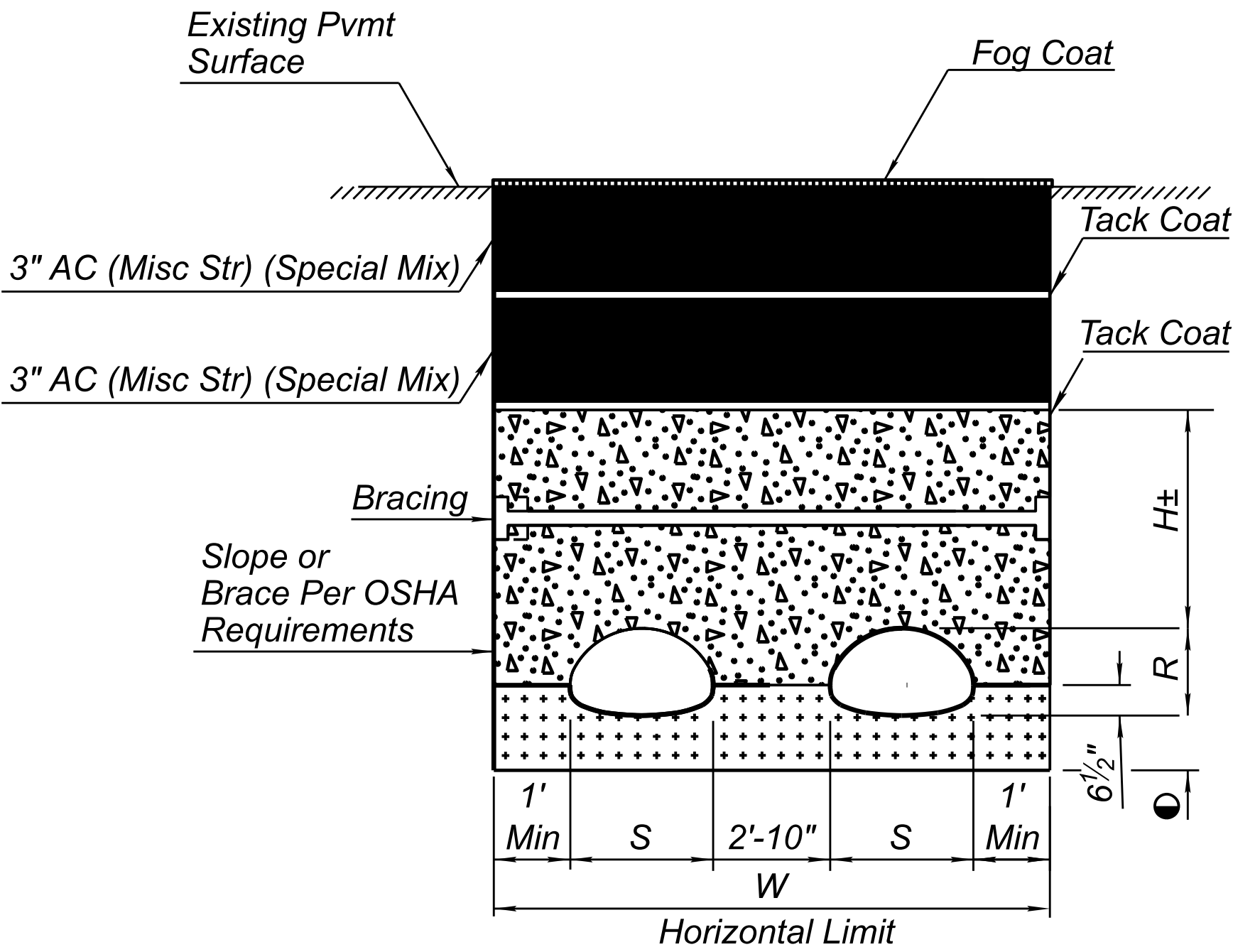


PLAN VIEW



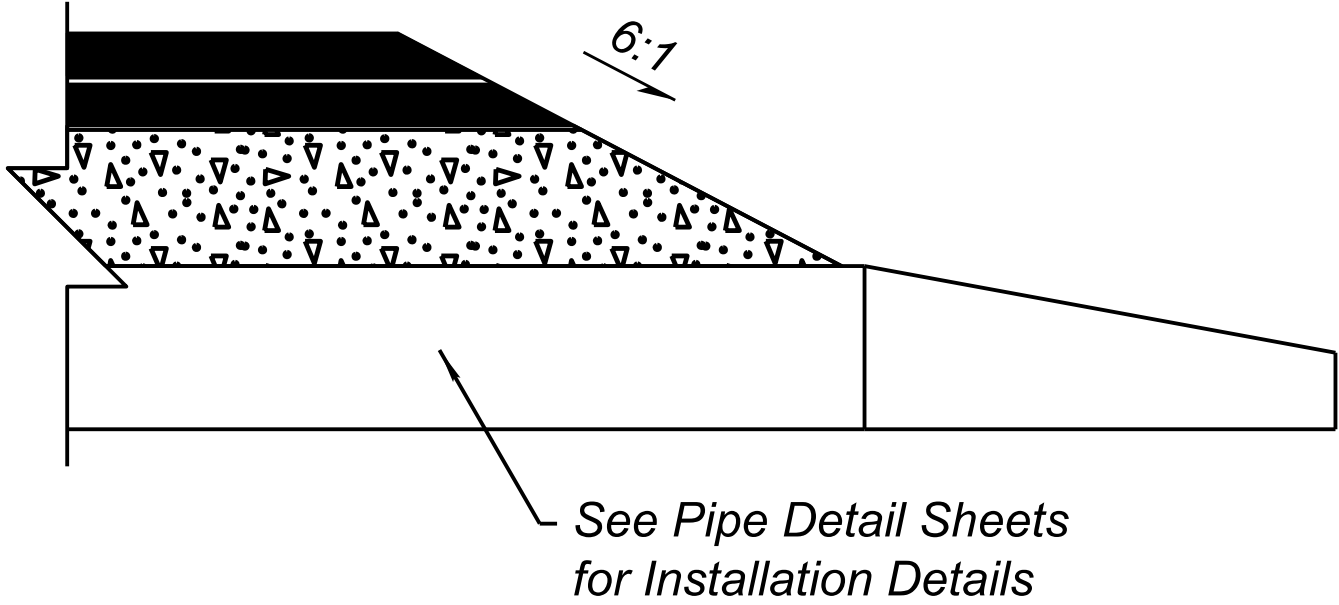
TRENCH CONDITION
IN NATURAL GROUND OR IN EMBANKMENT
WITH BRACING SHOWN

SECTION B-B



TRENCH CONDITION
IN NATURAL GROUND OR IN EMBANKMENT
WITH BRACING SHOWN

SECTION B-B



SECTION A-A

See Std C-13.10 for Details Not Shown

DETAIL B

PIPE ENCASEMENT LIMITS



	NAME	DATE
DESIGN	A. LOPEZ	05/25
DRAWN	A. LOPEZ	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL B

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	377 NA 008	377-A(203)T	6	48		
LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						SHEET 1 OF 1
TRACS NO. F0661 01C						___ OF ___

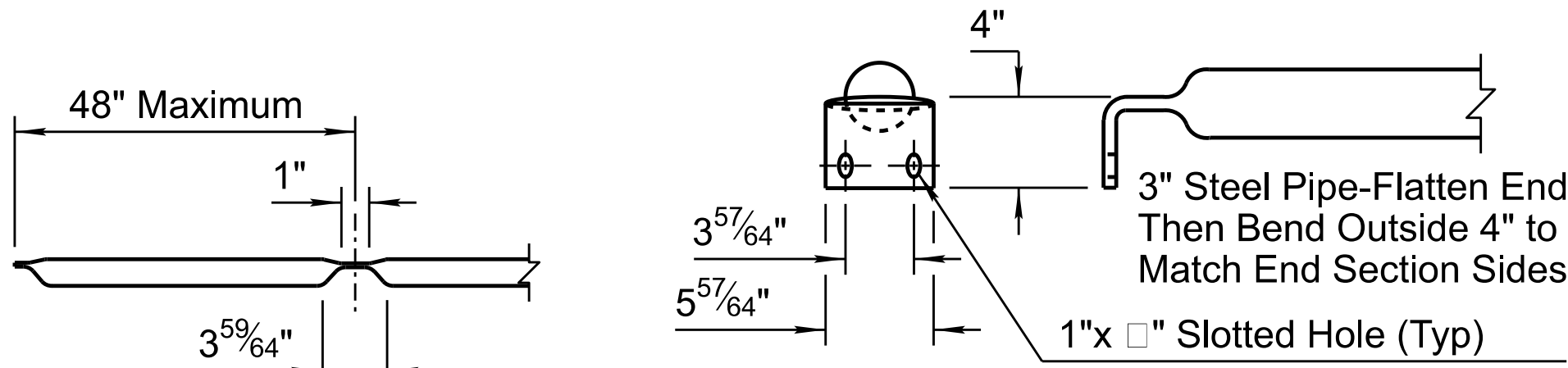
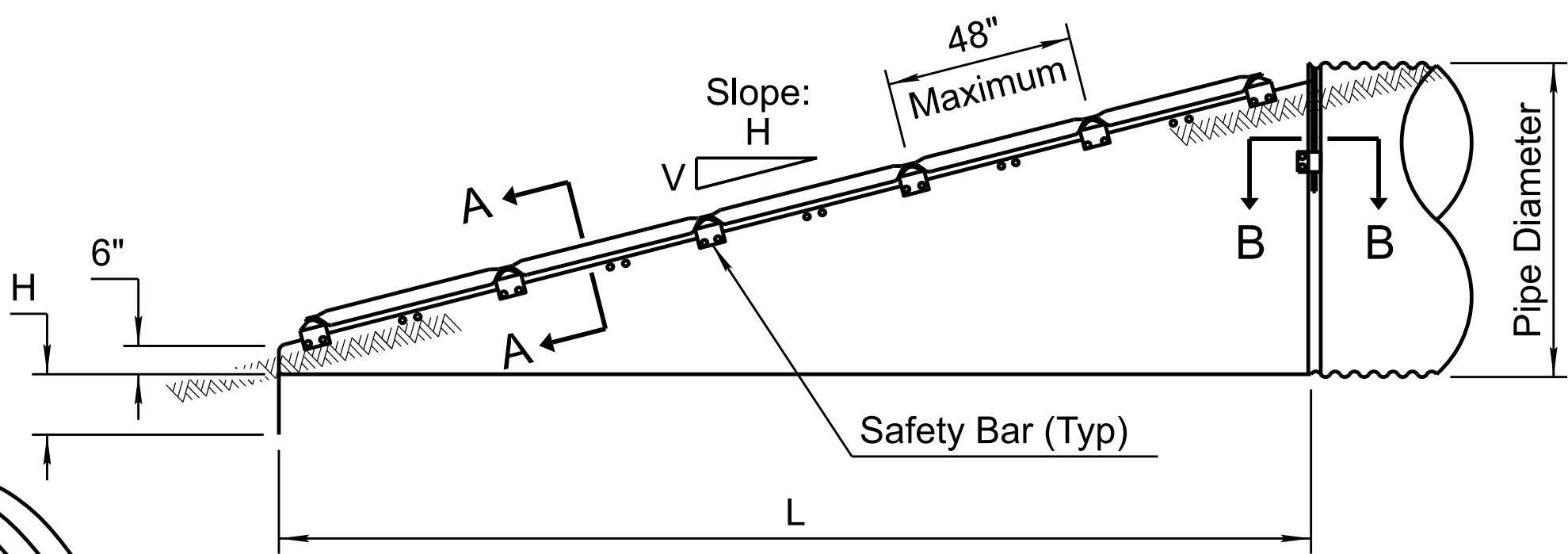
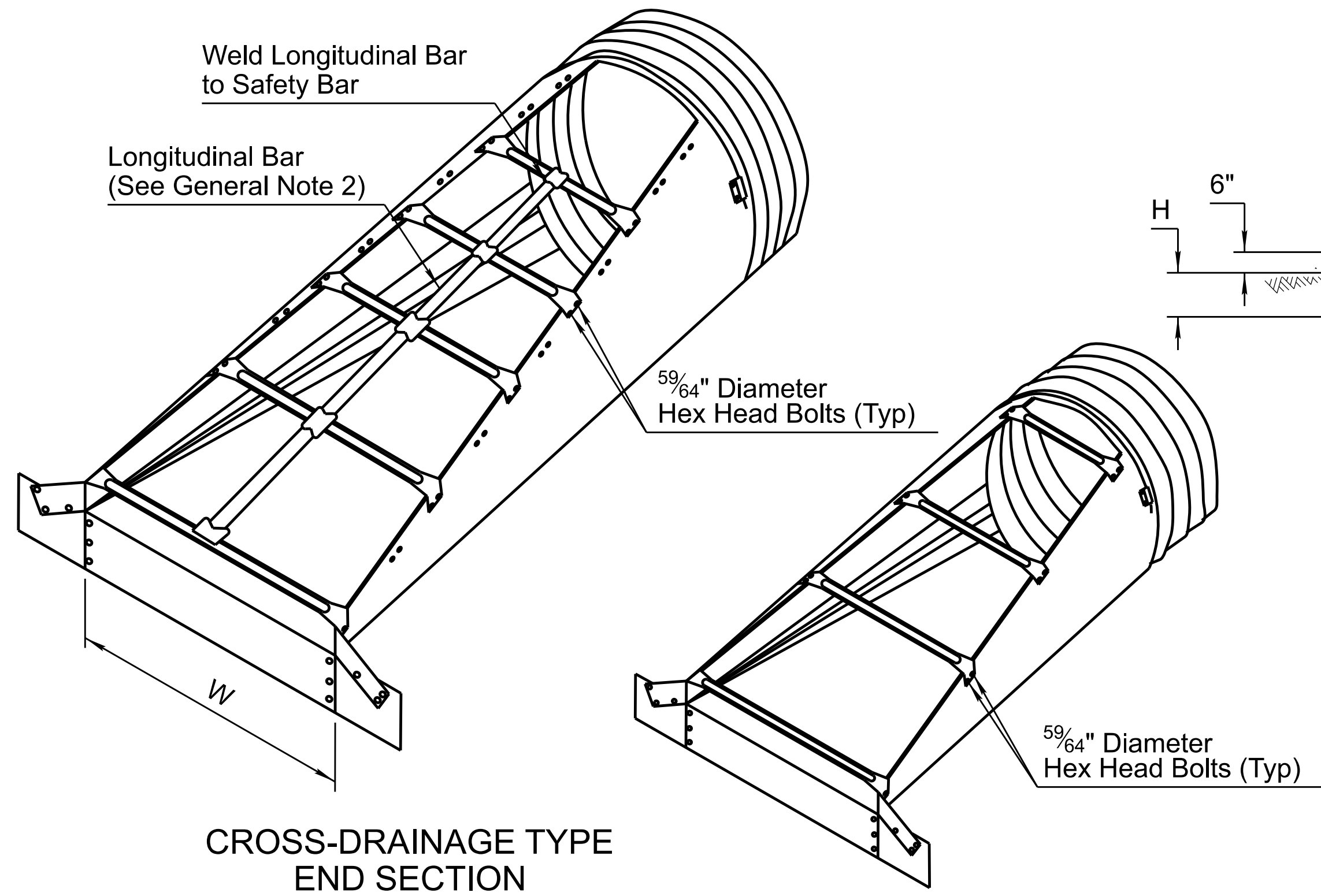
F.H.W.A. REGION	STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
9	ARIZ.	377-A(203)T	7	48	

377 NA 008

GENERAL NOTES

- The size, slope and type of end section, whether parallel or cross drainage, shall be shown on the plans.
- A longitudinal bar is required for cross-drainage end sections when the span (W) is greater than 30". Additional longitudinal bars shall be required if spacing exceeds 30" on larger end sections.
- Safety and longitudinal bars are not required on 30" and smaller cross-drainage end sections.

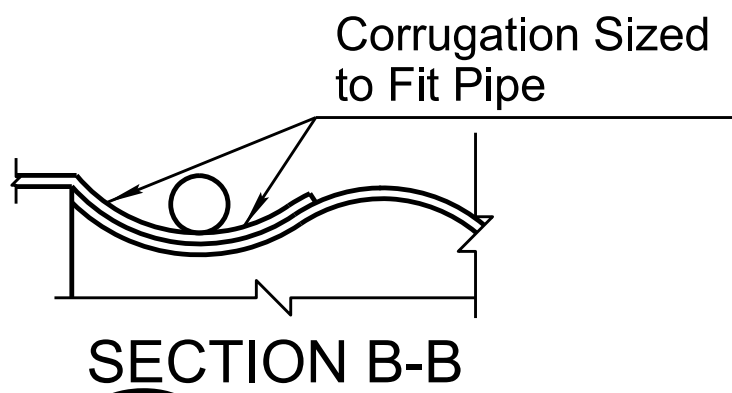
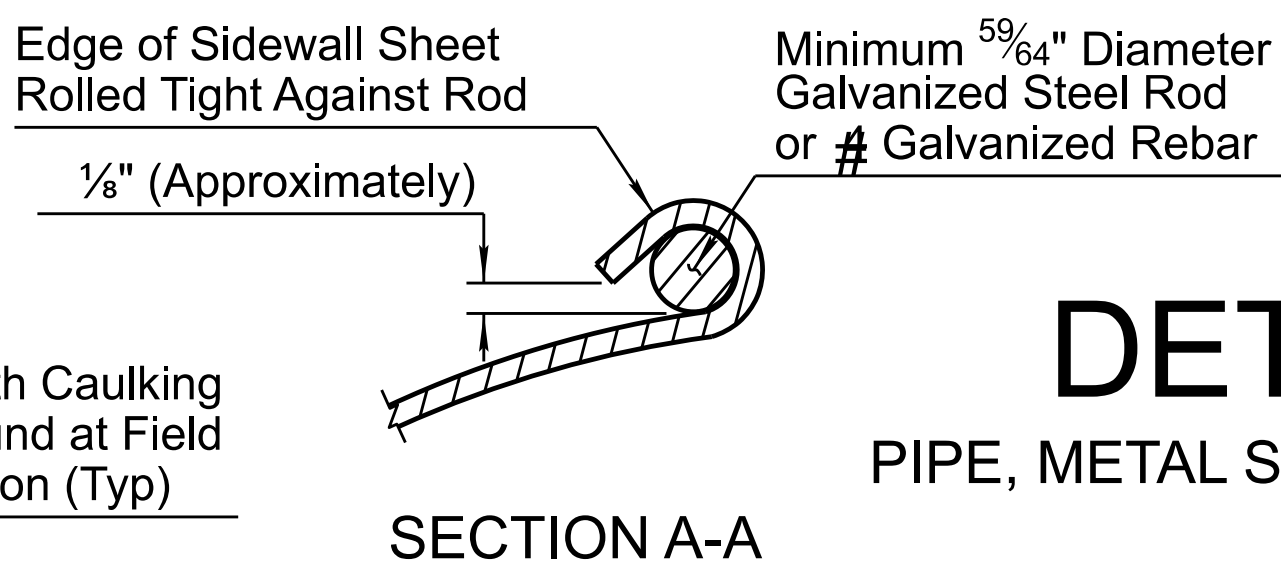
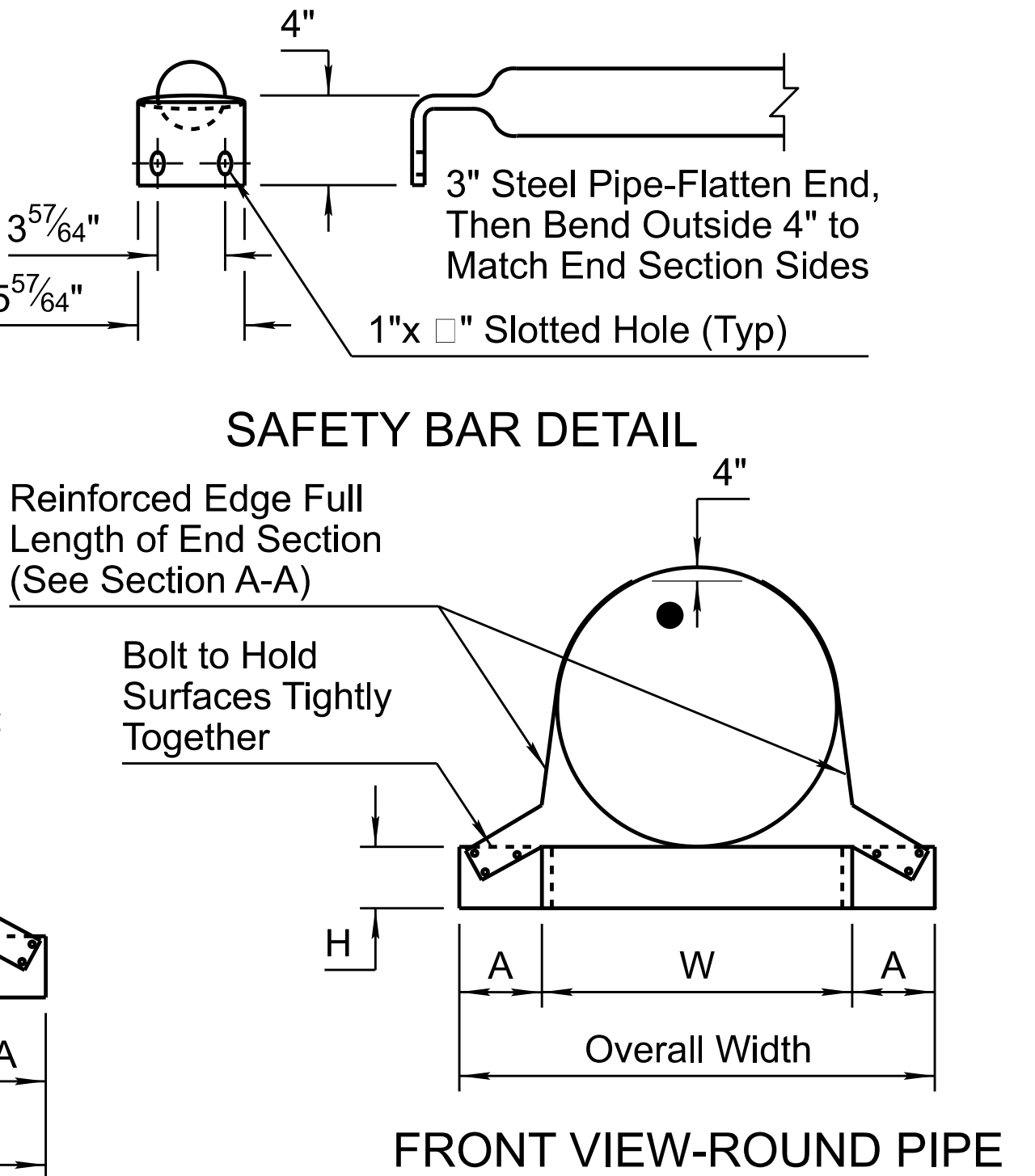
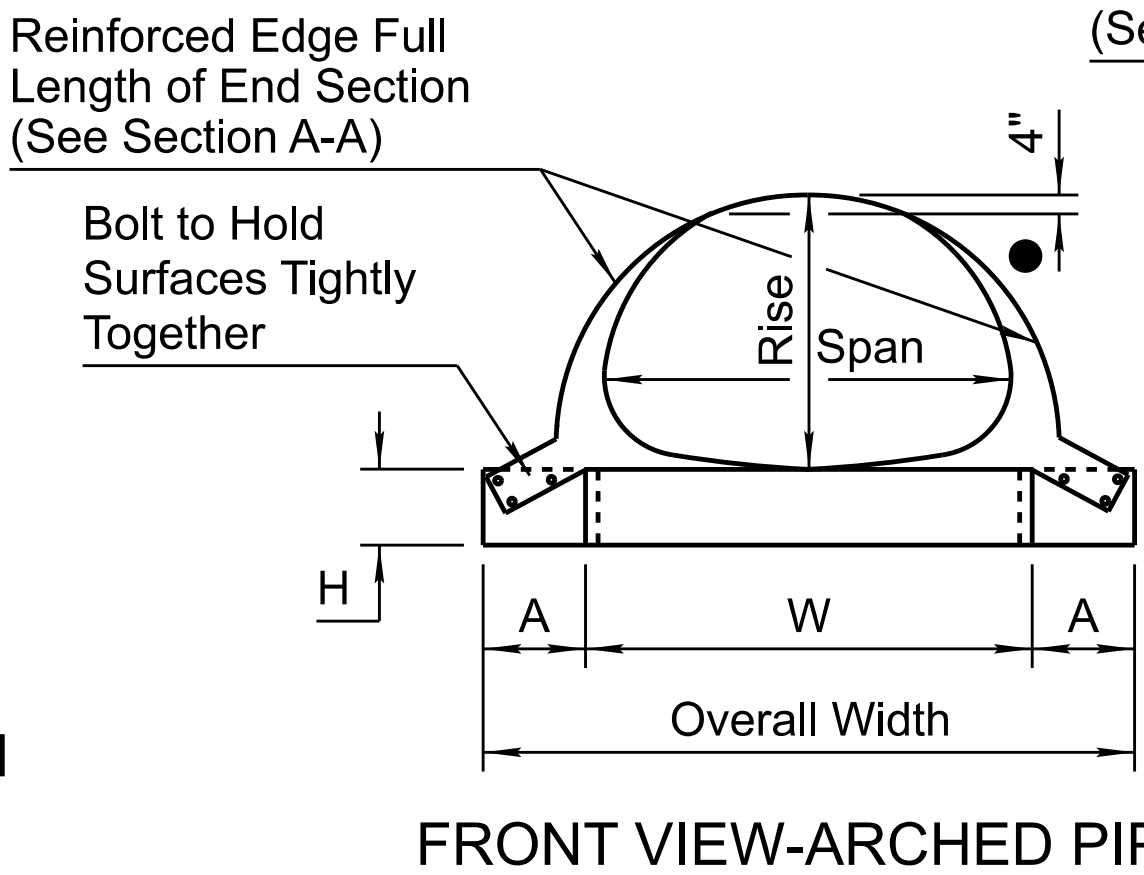
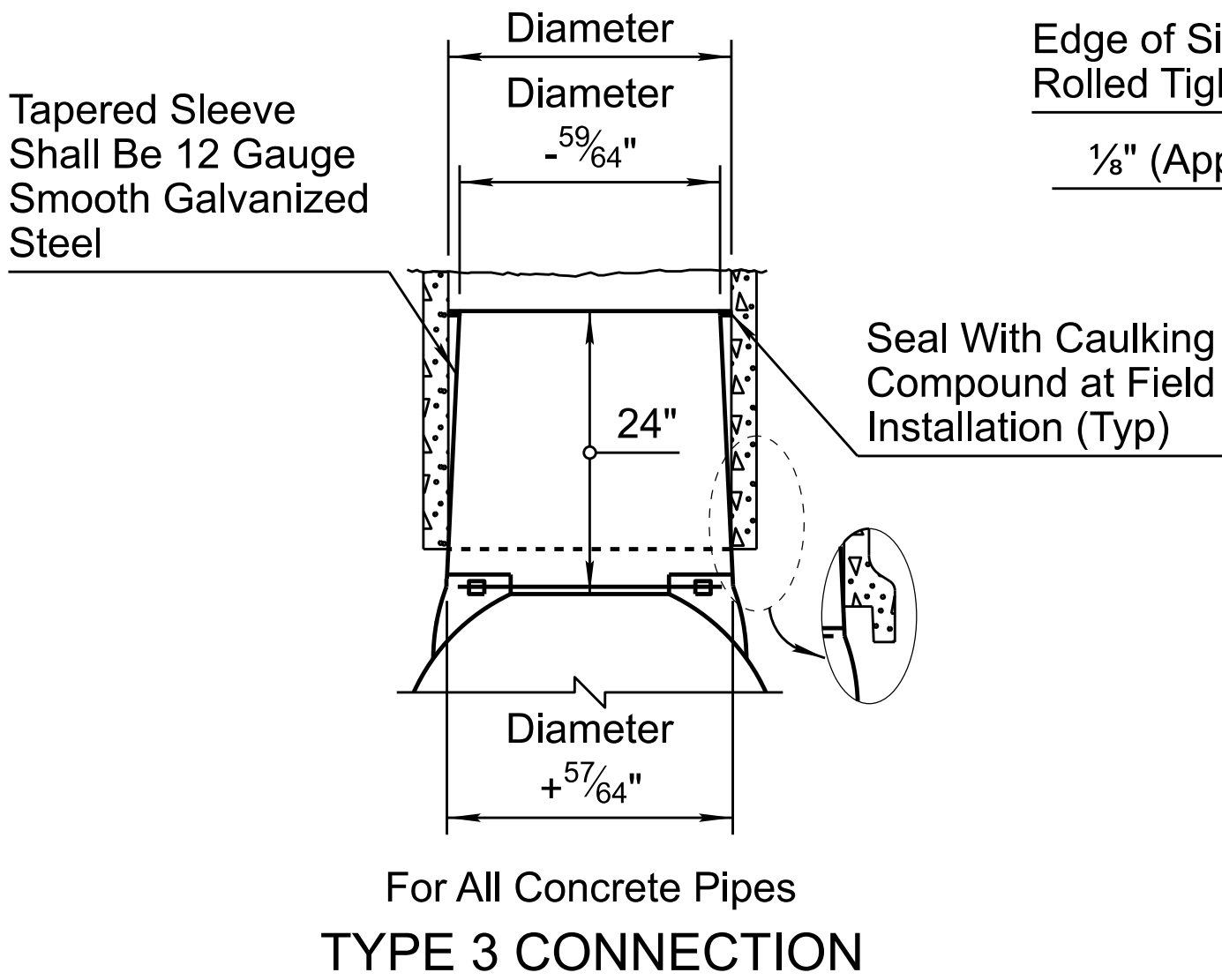
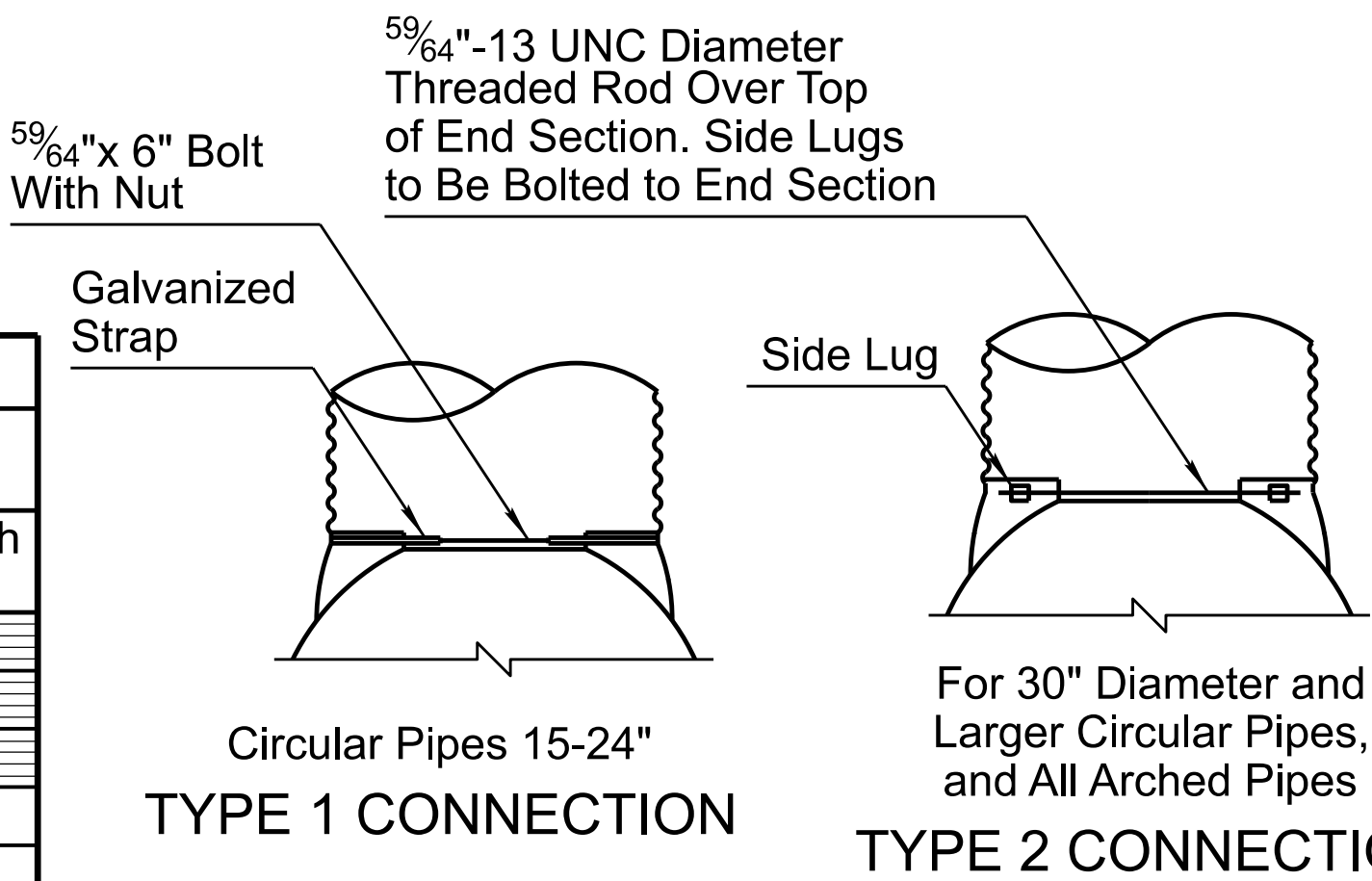
- - Top of Sloped End Section
- - These Sizes Are Not Normally Used for Culverts by ADOT
- ▲ - Headwalls Are Normally Required for Pipe Sizes 48" and Larger



METAL END SECTION FOR CIRCULAR PIPES												
Pipe Diameter (In)	Minimum Thickness		Dimensions (In)				L Dimensions					
	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
15 ■	.064	16	8	6	21	37	4:1	20	6:1	30	10:1	70
18 ■	.064	16	8	6	24	40	4:1	32	6:1	48	10:1	100
21 ■	.064	16	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	16	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	12	16	12	48	80	4:1	128	6:1	192	-	-
48 ▲	.109	12	16	12	54	86	4:1	152	6:1	228	-	-
54 ▲	.109	12	16	12	60	92	4:1	176	6:1	264	-	-
60 ▲	.109	12	16	12	66	98	4:1	200	6:1	300	-	-

■ Minimum Thickness For All 10:1 Slope End Sections is 12 Gauge

METAL END SECTION FOR ARCHED PIPES														
Equivalent Diameter (In)	(Inches)		Minimum Thickness		Dimensions (In)				L Dimensions					
	Span	Rise	In	Gauge	A	H	W	Overall Width	Slope H:V	Length (In)	Slope H:V	Length (In)	Slope H:V	Length (In)
18 ■	21	15	.064	16	8	6	27	43	4:1	20	6:1	30	10:1	70
21 ■	24	18	.064	16	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064	16	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079	14	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109	12	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	12	16	12	55	87	4:1	92	6:1	138	-	-
48 ▲	57	38	.109	12	16	12	63	95	4:1	112	6:1	168	-	-
54 ▲	64	43	.109	12	16	12	70	102	4:1	132	6:1	198	-	-
60 ▲	71	47	.109	12	16	12	77	109	4:1	149	6:1	222	-	-
72 ▲	83	57	.109	12	16	12	89	121	4:1	188	6:1	282	-	-



DETAIL C

PIPE, METAL SAFETY END SECTION

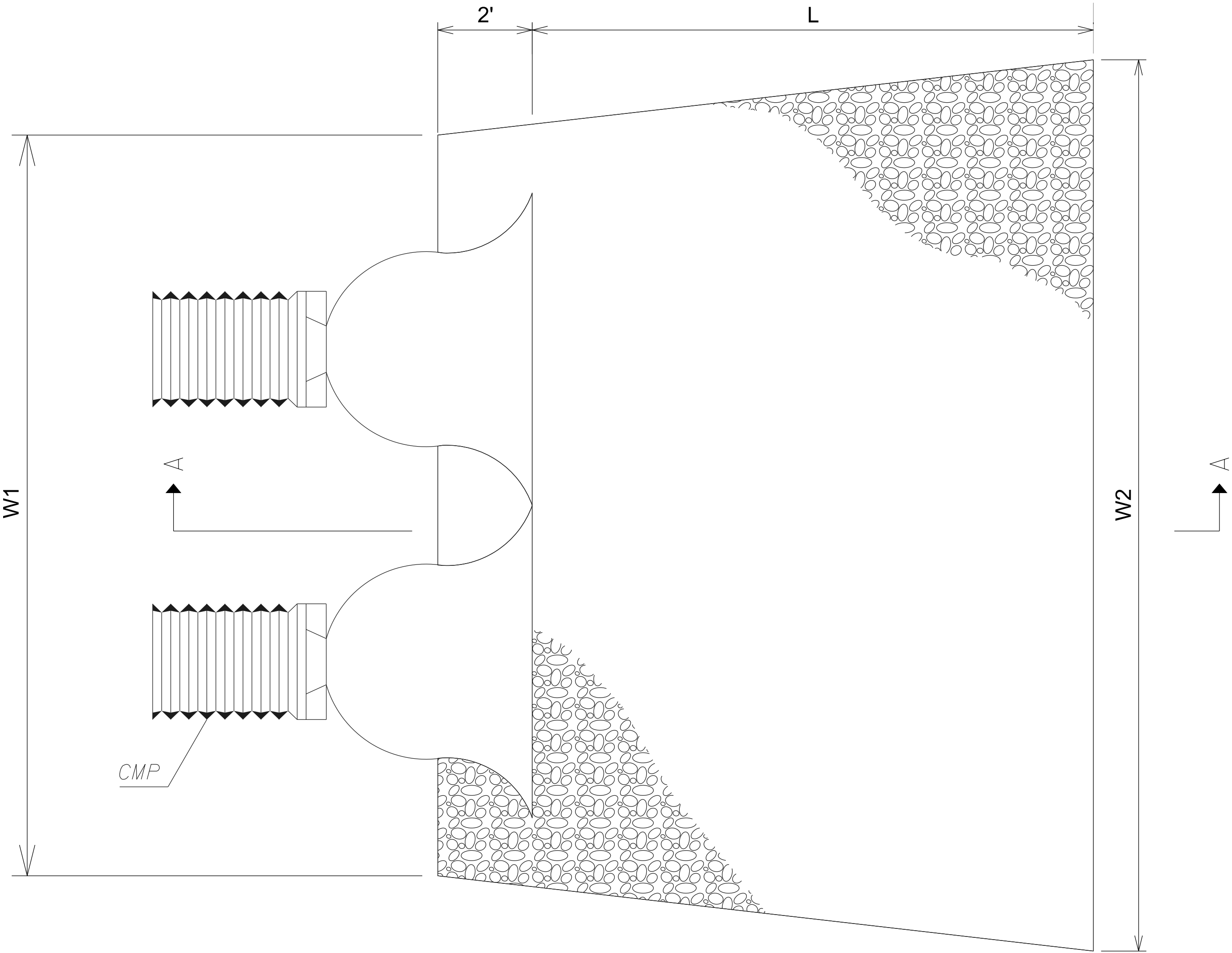
DESIGN APPROVED		ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY GROUP PLANS DETAIL	
Kenneth R. Cooper		Detail C	
APPROVED FOR DISTRIBUTION			
J. C. Cooper			
ROUTE SR 377	LOCATION MP 8 – PHOENIX PARK WASH, S OF DRY LAKE	SHEET 1	OF 1
TRACS NO. F0661 01C		OF	

- NOTES
- Apron dimensions may be adjusted to meet field conditions at the direction of the Engineer.
 - The slope of the riprap apron may vary to match the geometric shape of the channel.

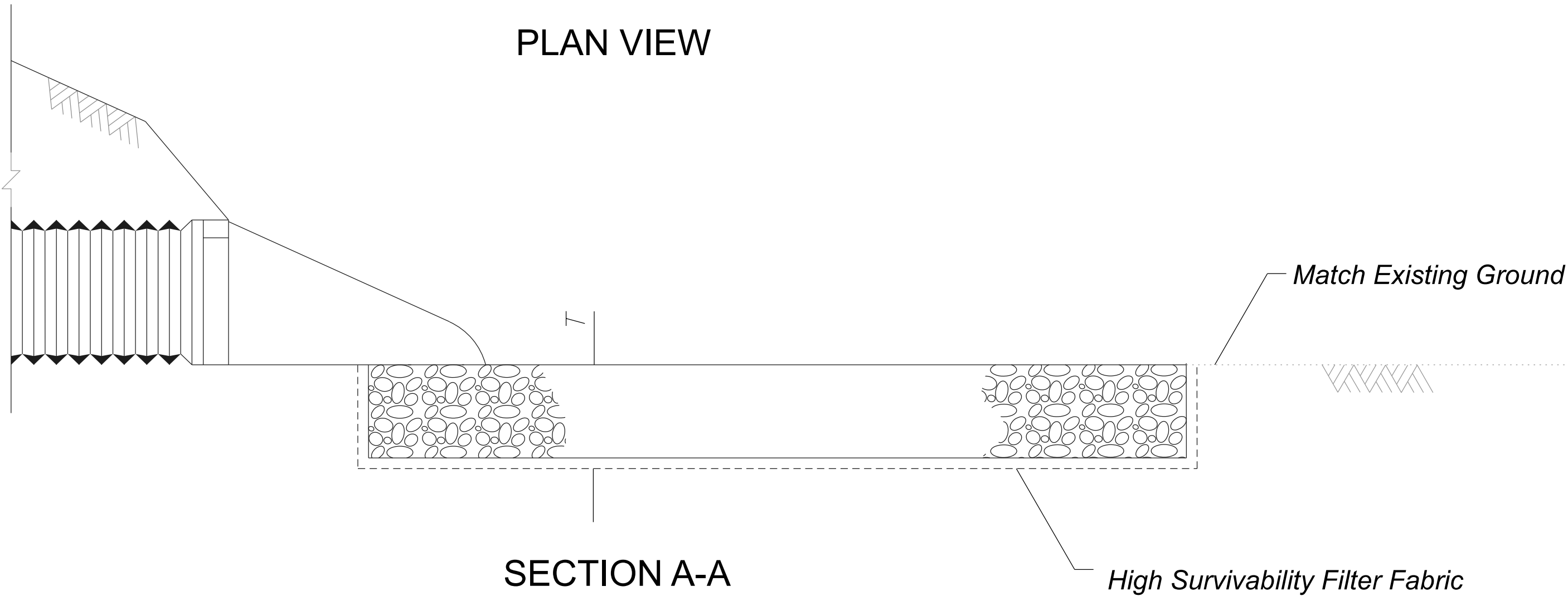
RIPRAP OUTLET SUMMARY									Riprap Removal		
Detail	W1 (Ft)	W2 (Ft)	L (Ft)	T (Ft)	Volume (Cu Yd)	Riprap Type		D ₅₀ (Inch)	Riprap Location		Removal Volume (Cu Yd)
						Dumped	Grouted		Inlet	Outlet	
D02	7	18	16.5	3	23	X	-	15	-	X	2
D03	7	13.5	9.5	2	7	X	-	9	-	-	-
D04	7	13.5	9.5	2	7	X	-	9	-	-	-
D06	25	35	24	2.5	67	X	-	9	X	-	15
D07a	25	35	28	3	93	X	-	9	X	X	19
D07b	25	35	36	3	120	X	-	9	X	X	19
D07c	15	20	24	2	31	X	-	9	X	X	19
D10	-	-	-	-	-	-	-	-	-	X	1
Total					348						75

RIPRAP GRADATIONS	
	D ₅₀ = 9 Inch
% Passing	Sieve Size (In)
100-90	15
85-70	13
50-30	10
15-5	5
5-0	3

RIPRAP GRADATIONS	
	D ₅₀ = 15 Inch
% Passing	Sieve Size (In)
100-90	26
85-70	21
50-30	17
15-5	9
5-0	5

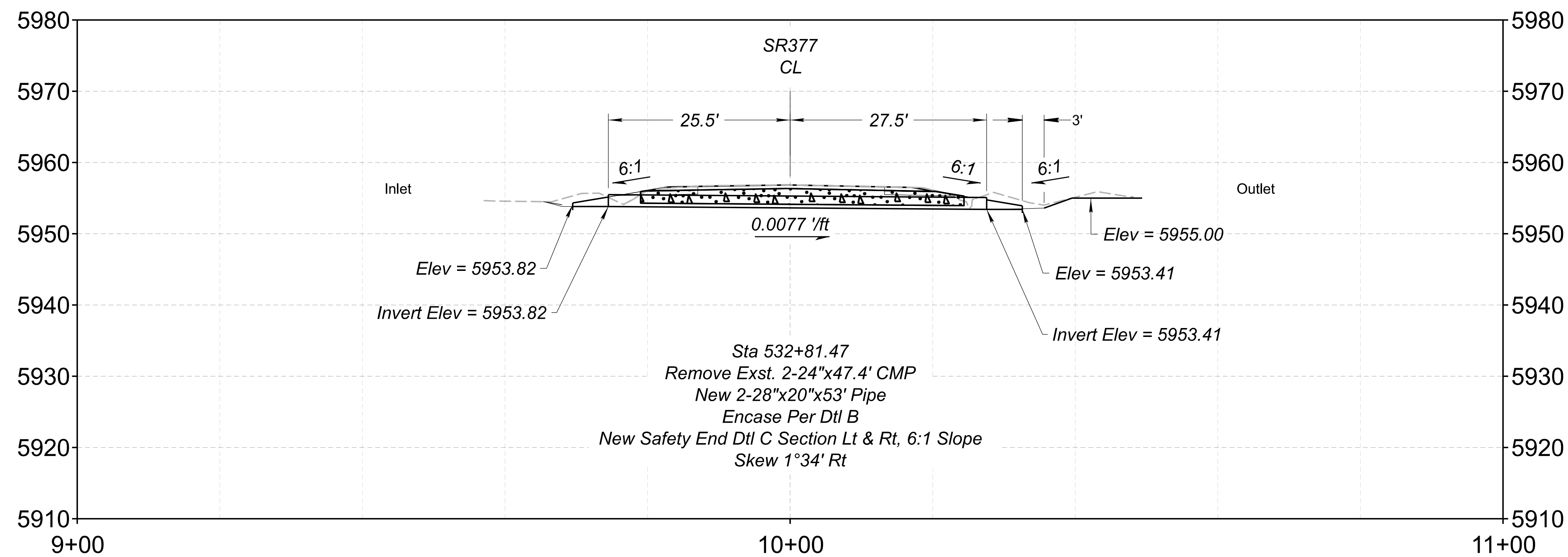
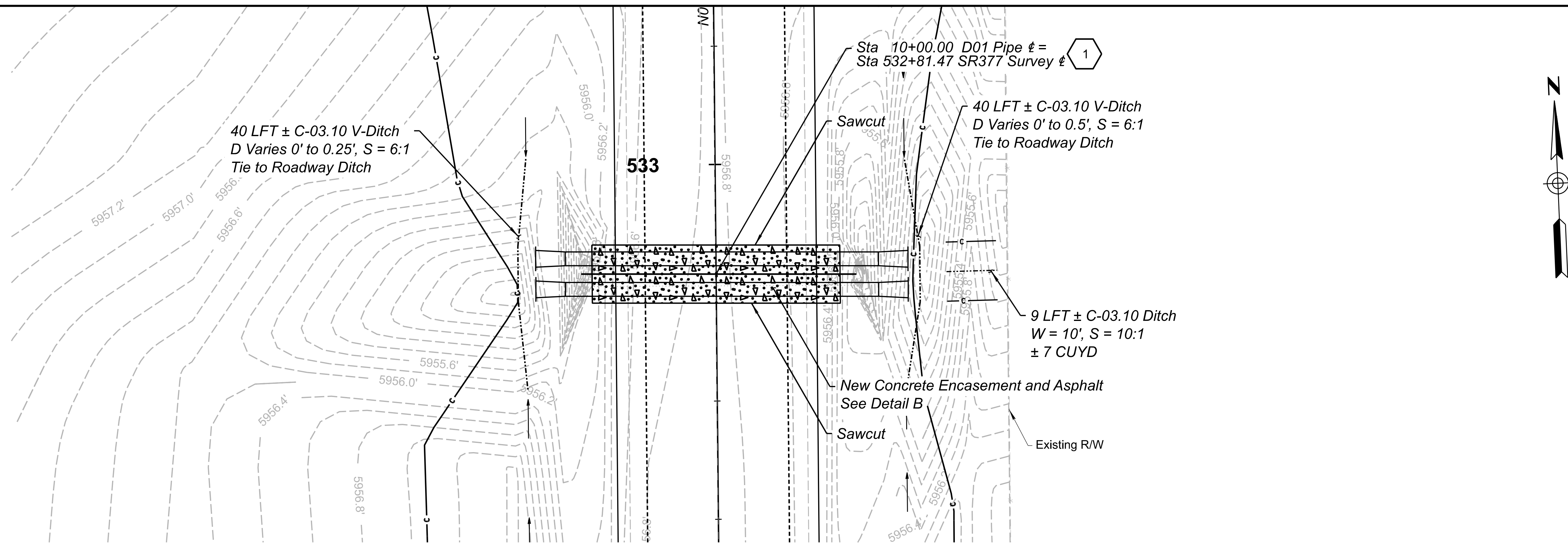


PLAN VIEW



SECTION A-A

DETAIL E
RIPRAP APRON



DETAIL D01



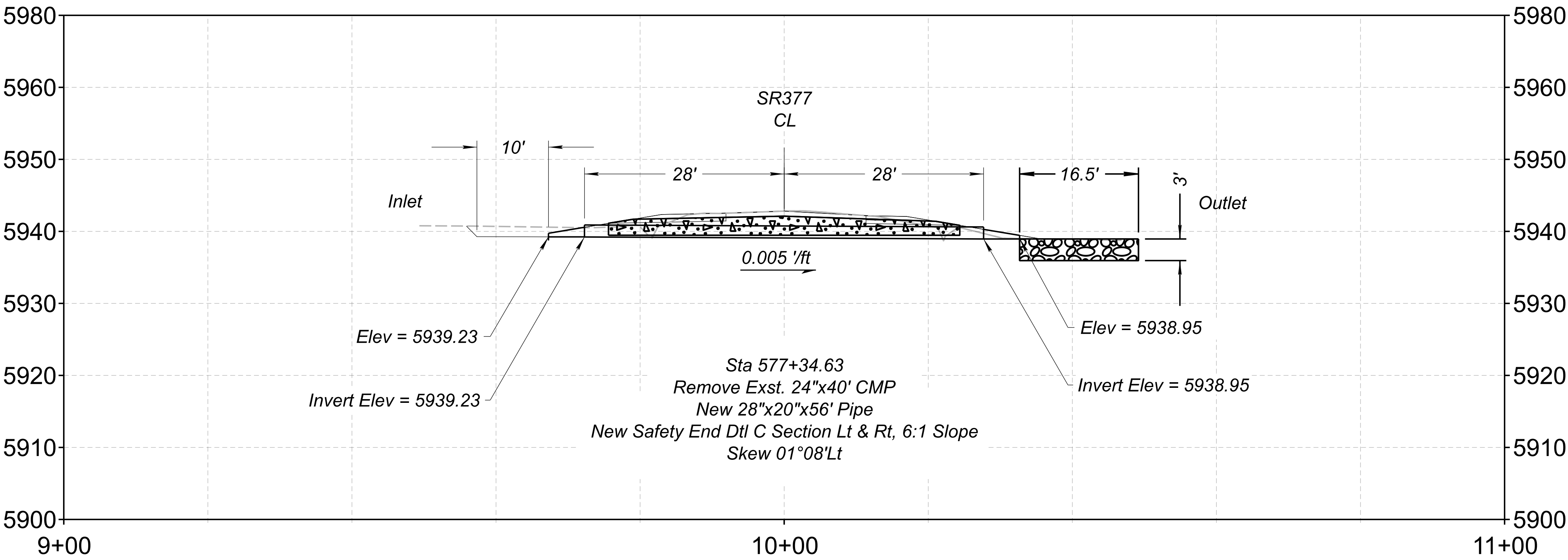
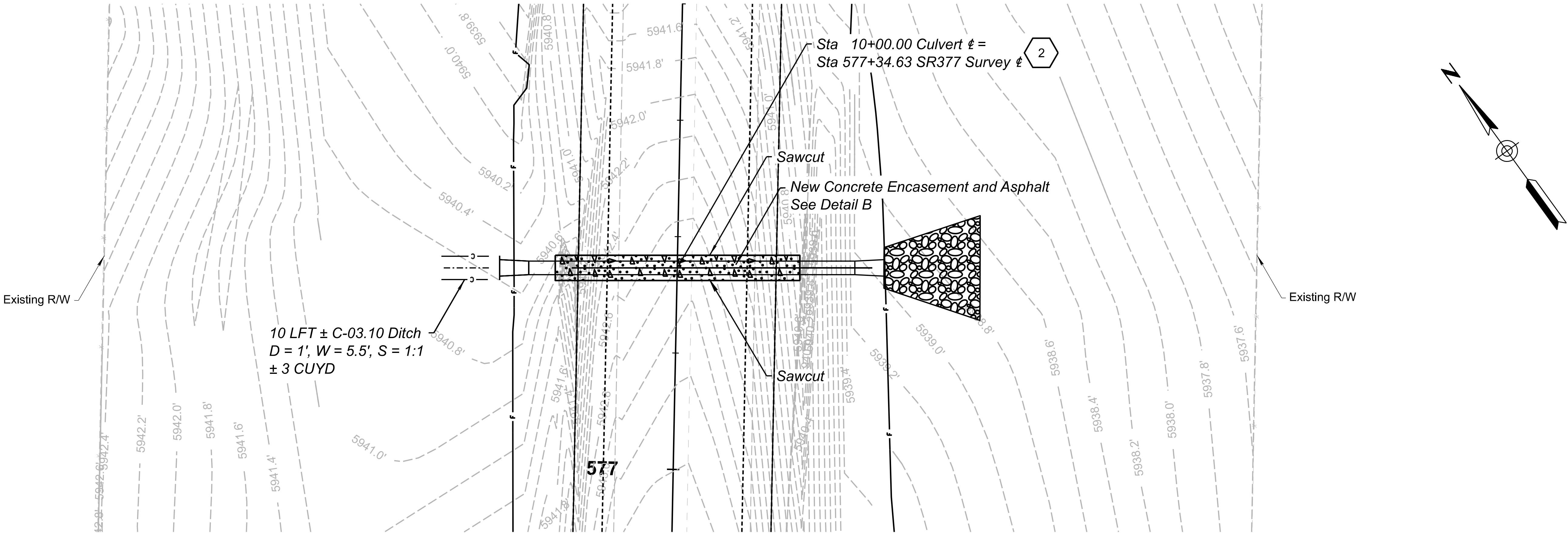
	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL D01

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
ARIZ.	ARIZ.	377 NA 008	377-A(203)T	9	48	
LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						SHEET 1 OF 1
TRACS NO. F0661 01C						___ OF ___



DETAIL D02



	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNES	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL D02

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

F.H.W.A. Arizona Division

STATE

PROJECT NO.

FEDERAL ID NO.

SHEET NO.

TOTAL SHEETS

RECORD DRAWING

ARIZ.

377 NA 008

377-A(203)T

10

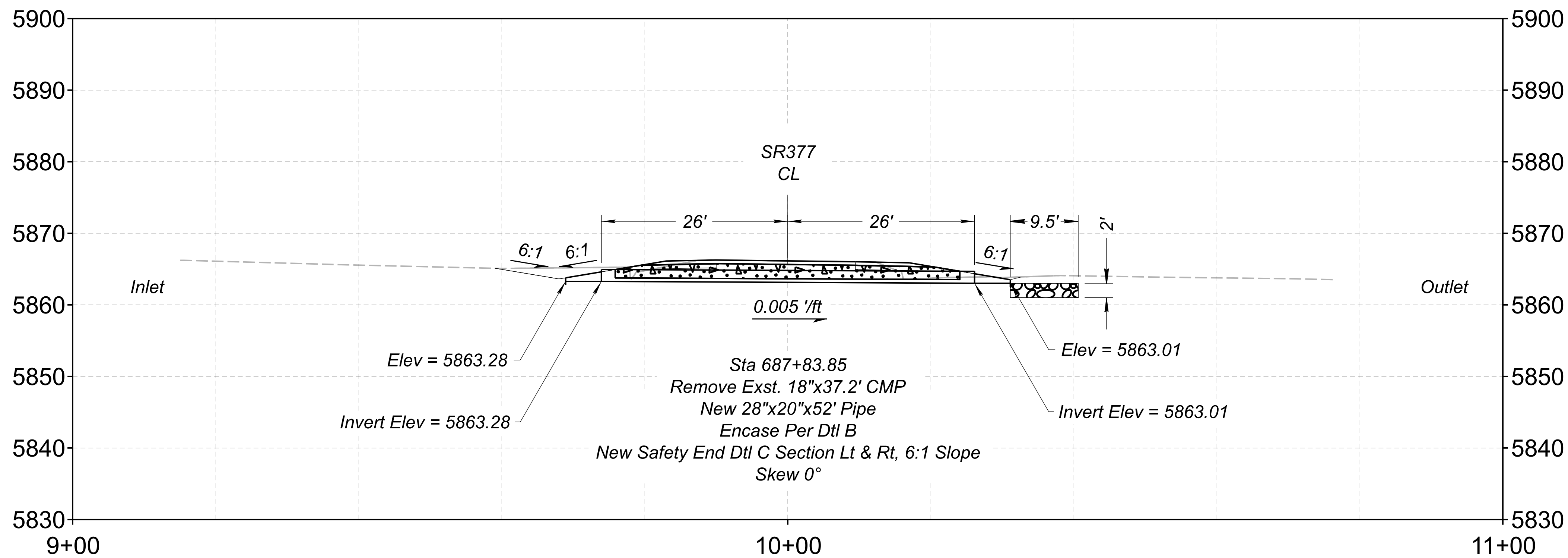
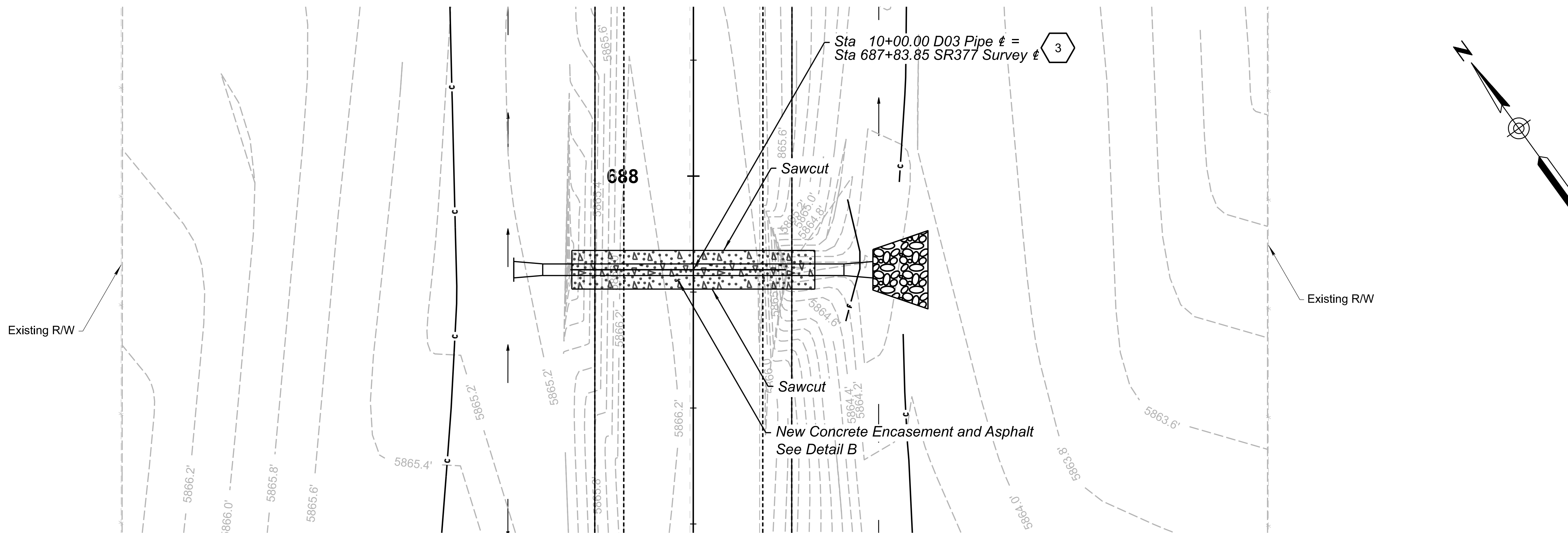
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LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

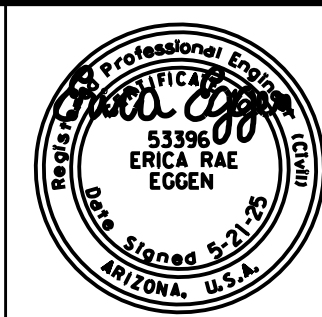
TRACS NO. F0661 01C

SHEET 1 OF 1

OF



DETAIL D03



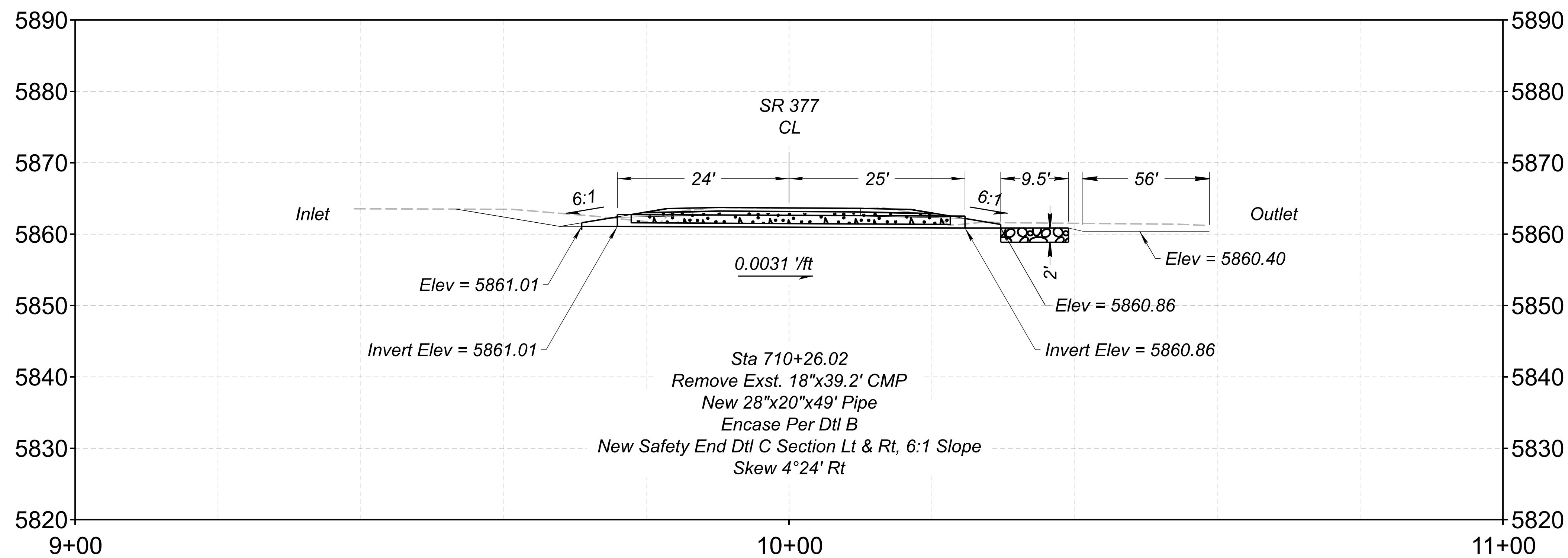
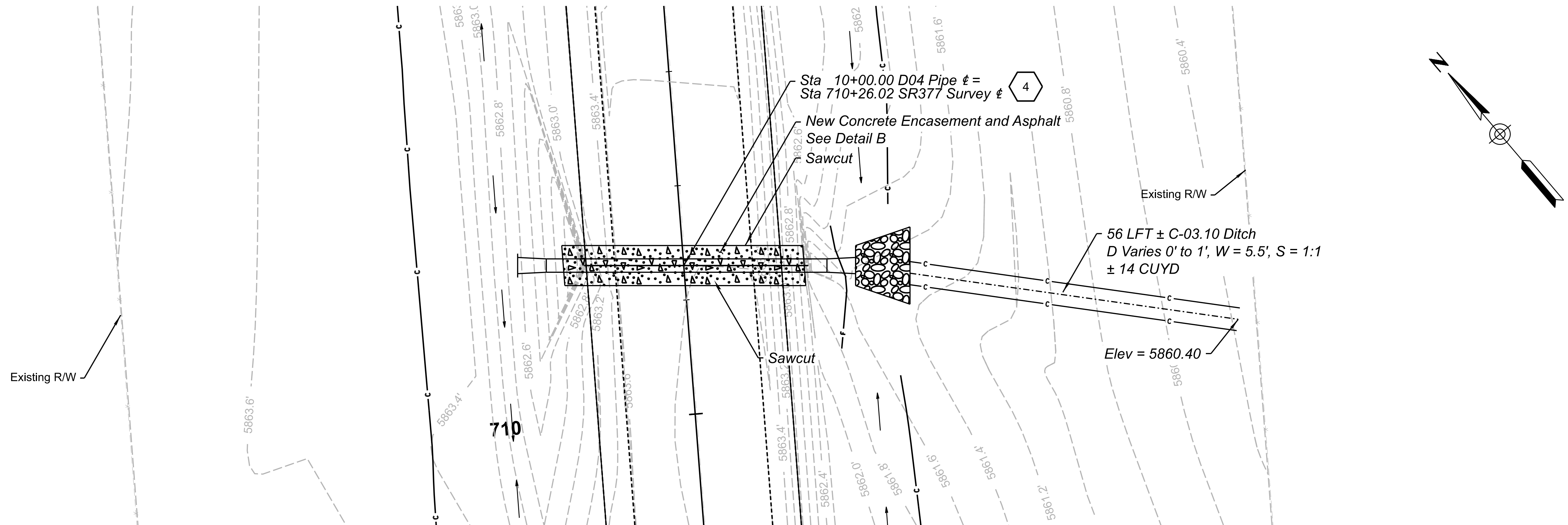
	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL D03

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	11	TOTAL SHEETS	48	RECORD DRAWING
LOCATION										MP 8 - PHOENIX PARK WASH, S OF DRY LAKE	
TRACS NO.										F0661 01C	
										SHEET 1 OF 1	



DETAIL D04

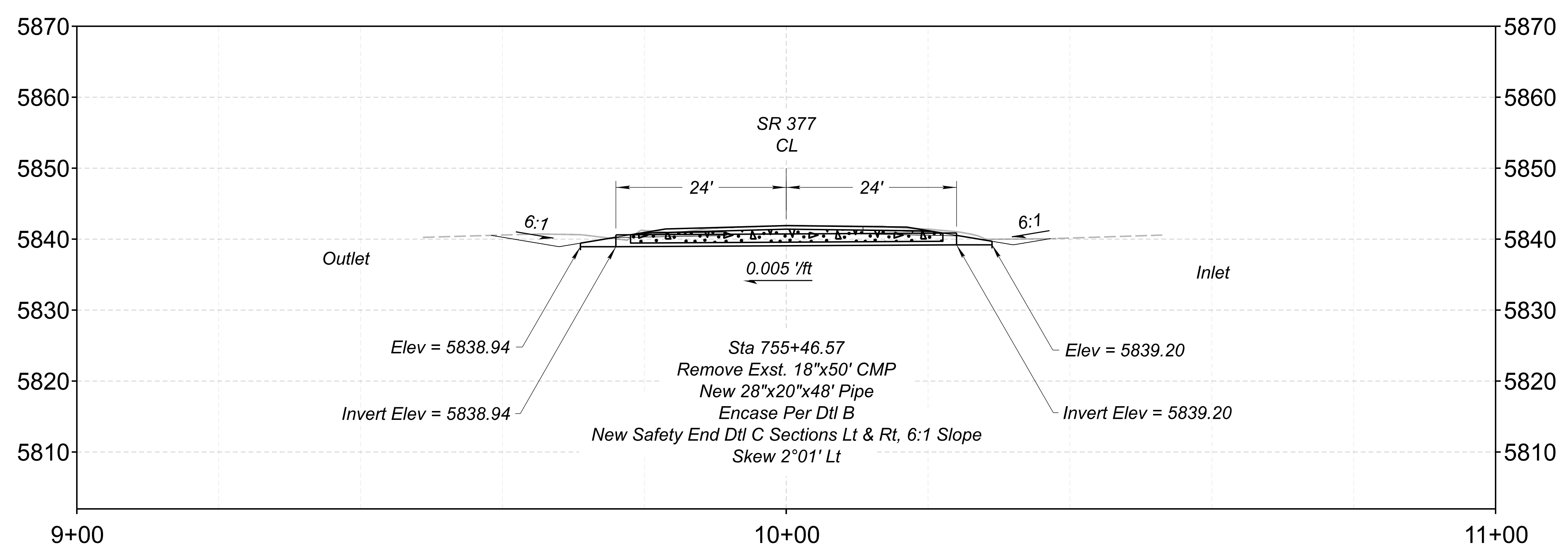
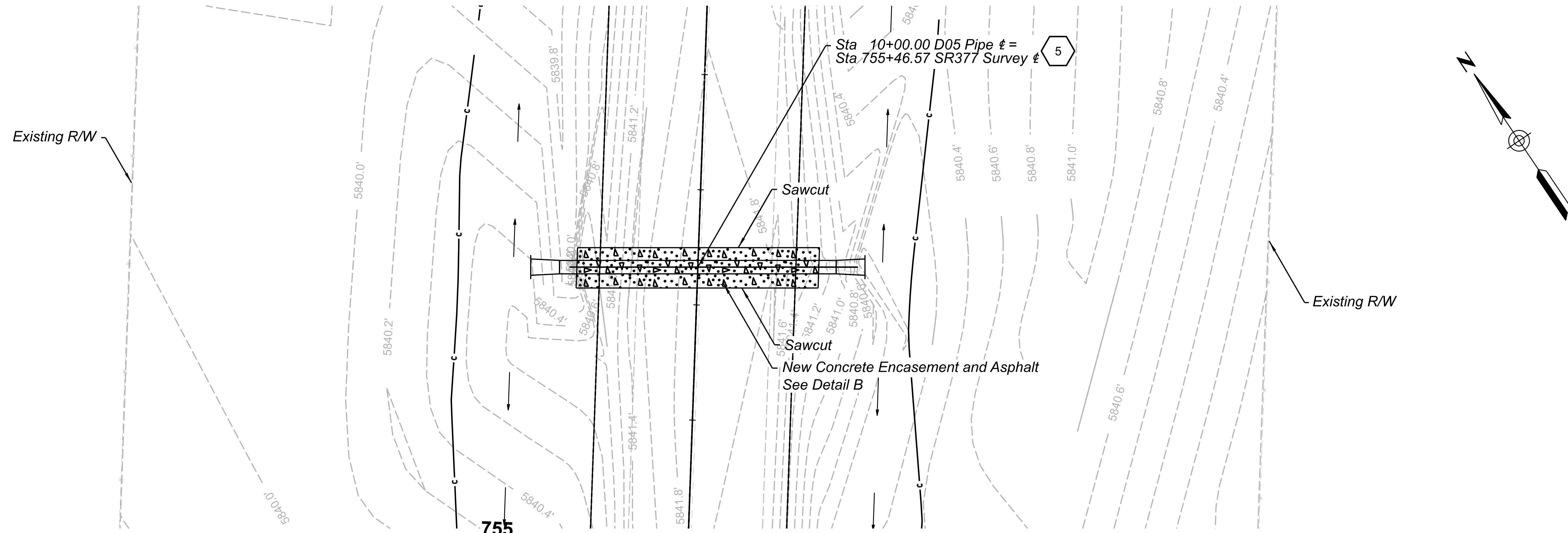


	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

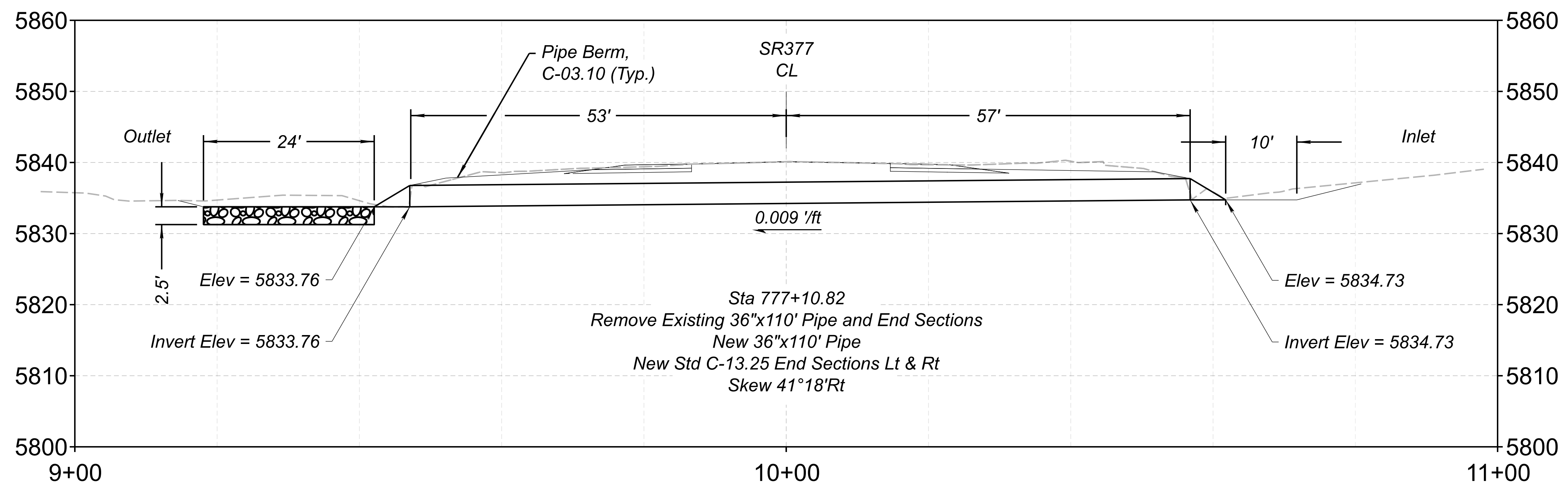
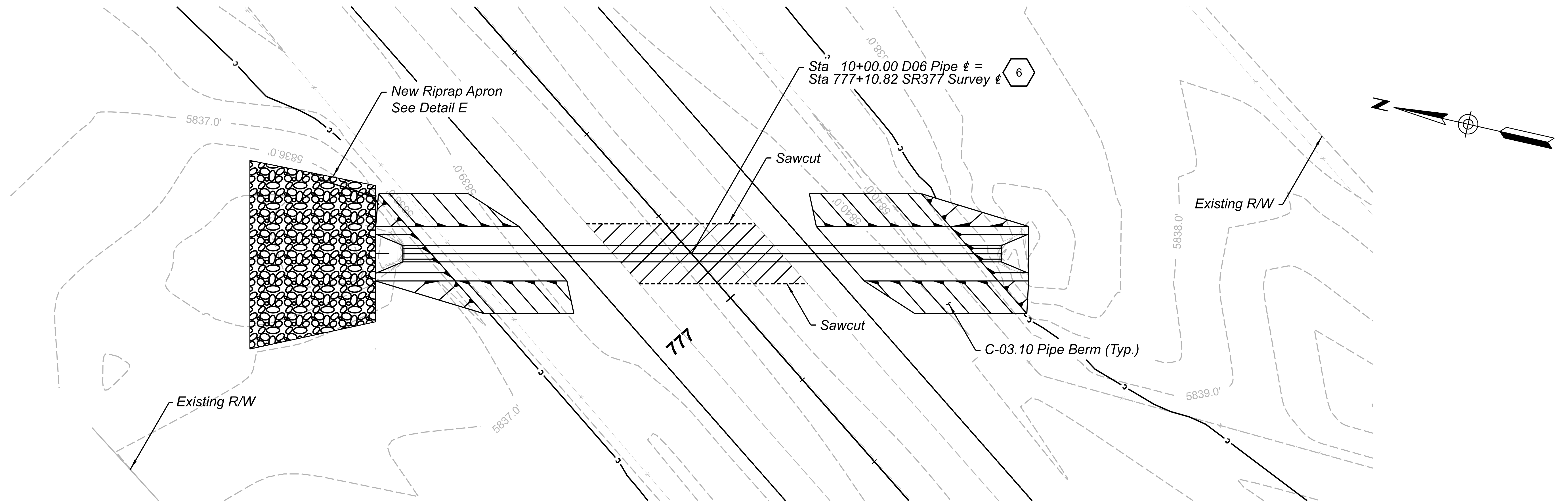
DETAIL D04

ROUTE	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
SR 377	ARIZ.	377 NA 008	377-A(203)T	12	48	
MILEPOST	MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 1
STRUCTURE NO.	TRACS NO. F0661 01C					___ OF ___



DETAIL D05

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	N. H. & M. S.	05/25		SR 377		ARIZ.	377 NA 008	377-A(203)T	13	48	
	DRAWN	N. H. & M. S.	05/25		MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						
	CHECKED	N. HARNES	05/25		STRUCTURE NO.	TRACS NO. F0661 01C						
	TEAM LEADER	E. EGGEN	05/25			SHEET 1 OF 1 ____ OF ____						
				DETAIL D05								



DETAIL D06



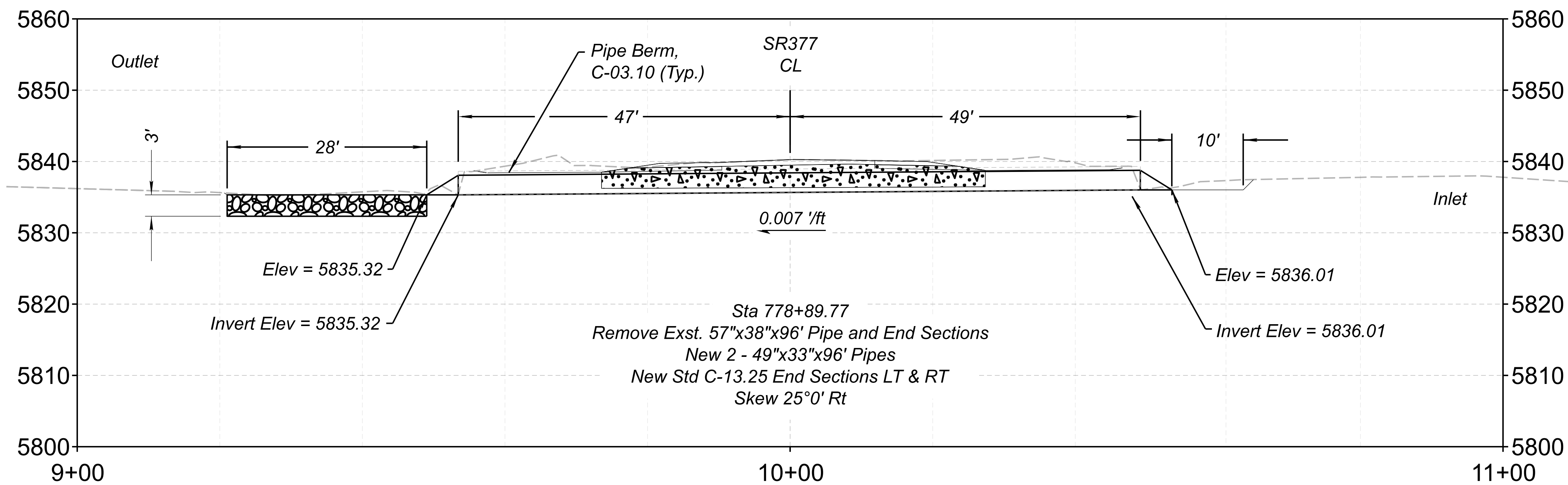
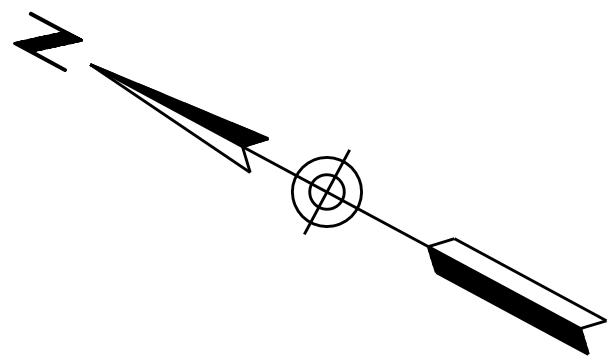
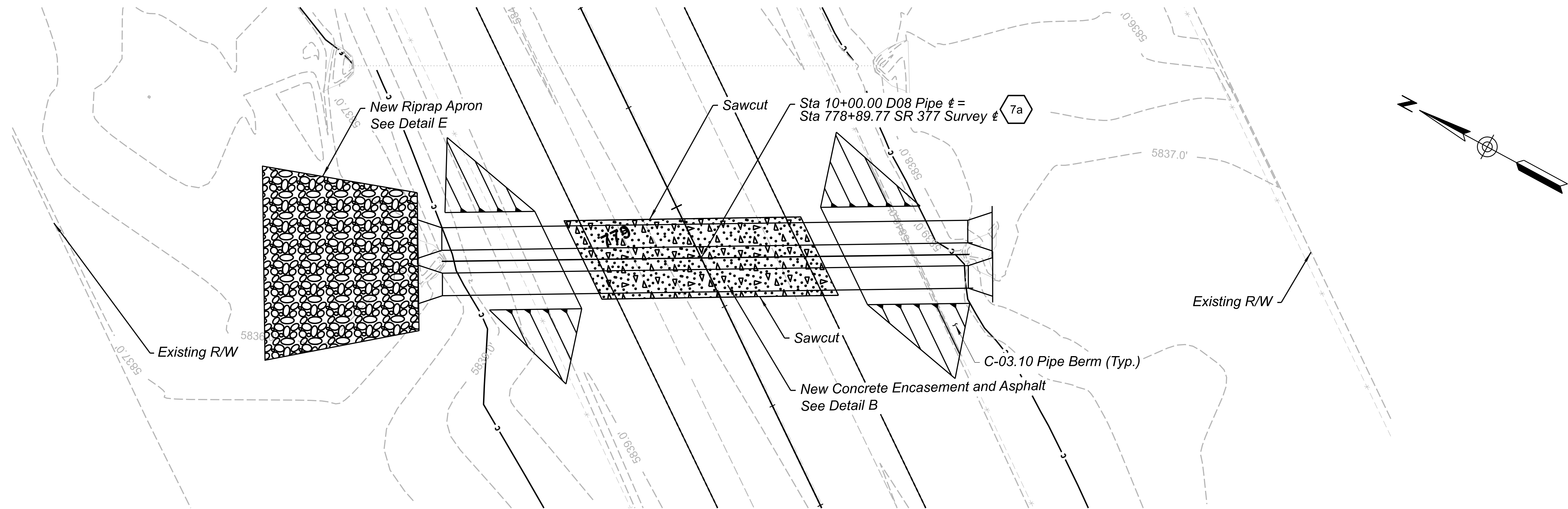
	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNES	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL D06

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	14	TOTAL SHEETS	48	RECORD DRAWING
LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE											SHEET 1 OF 1
TRACS NO. F0661 01C											OF



DETAIL **D07a**



	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNES	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

DETAIL D07a

ROUTE
SR 377

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE
ARIZ.

PROJECT NO.
377 NA 008

FEDERAL ID NO.
377-A(203)T

SHEET
NO.
15

TOTAL
SHEETS
48

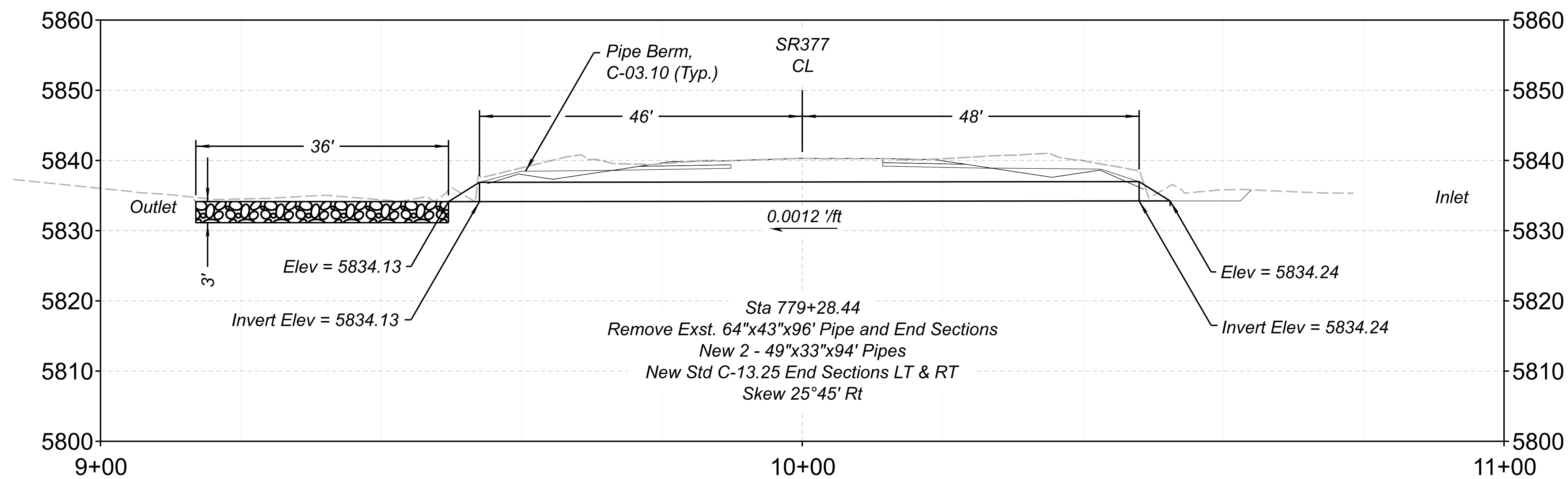
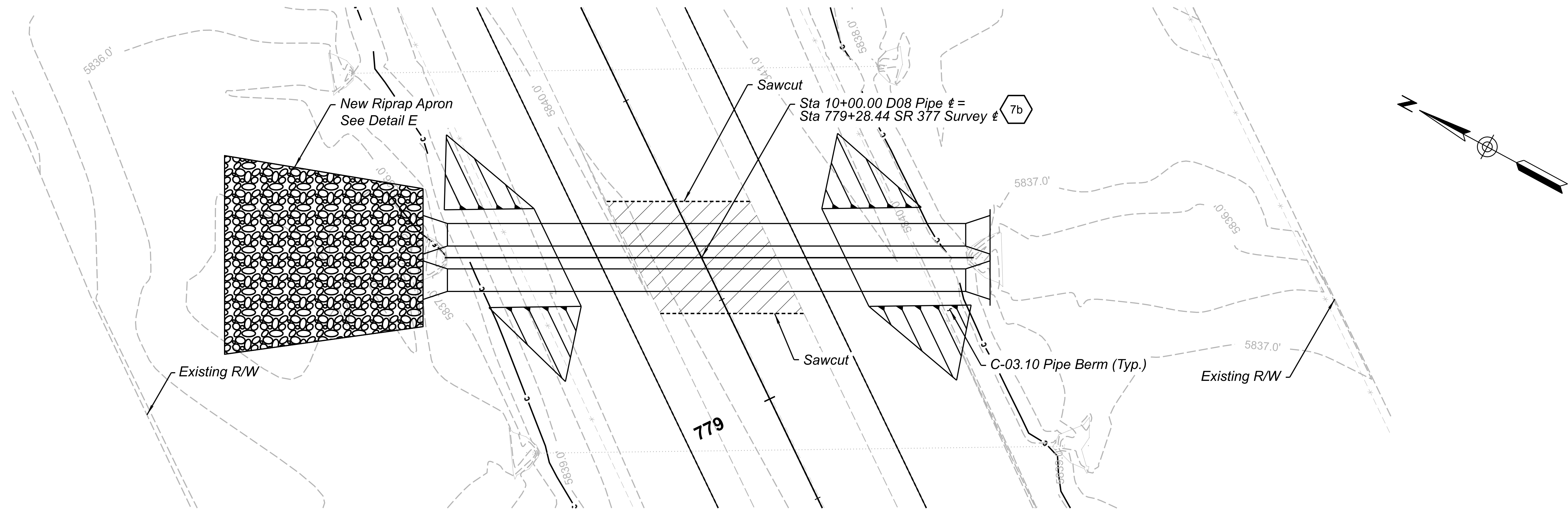
RECORD DRAWING

LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

TRACS NO. F0661 01C

SHEET 1 OF 1

OF



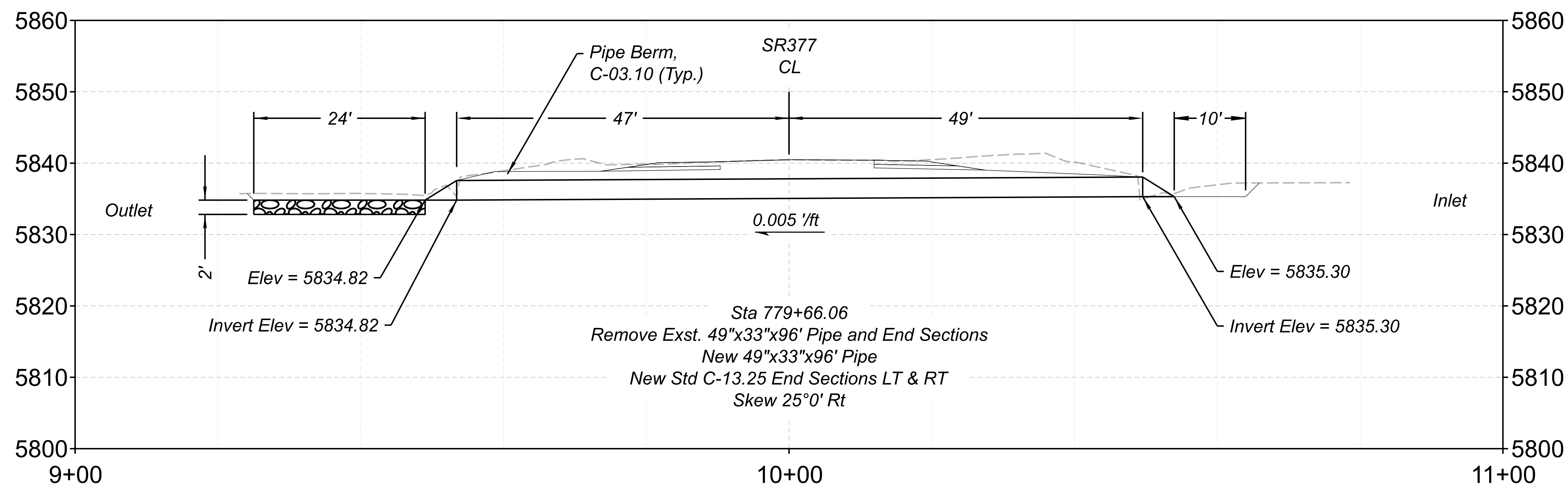
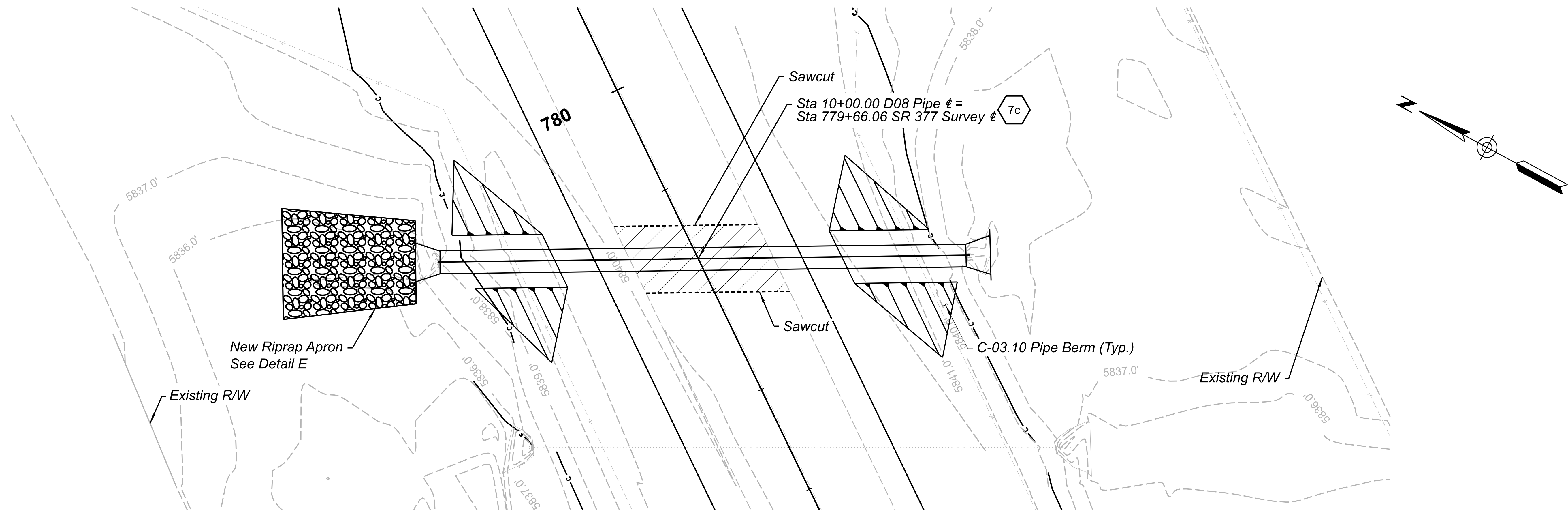
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	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION
DETAIL D07b

ROUTE SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 16	TOTAL SHEETS 48	RECORD DRAWING
MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE	SHEET 1 OF 1				OF	
STRUCTURE NO.	TRACS NO. F0661 01C						



DETAIL **D07c**

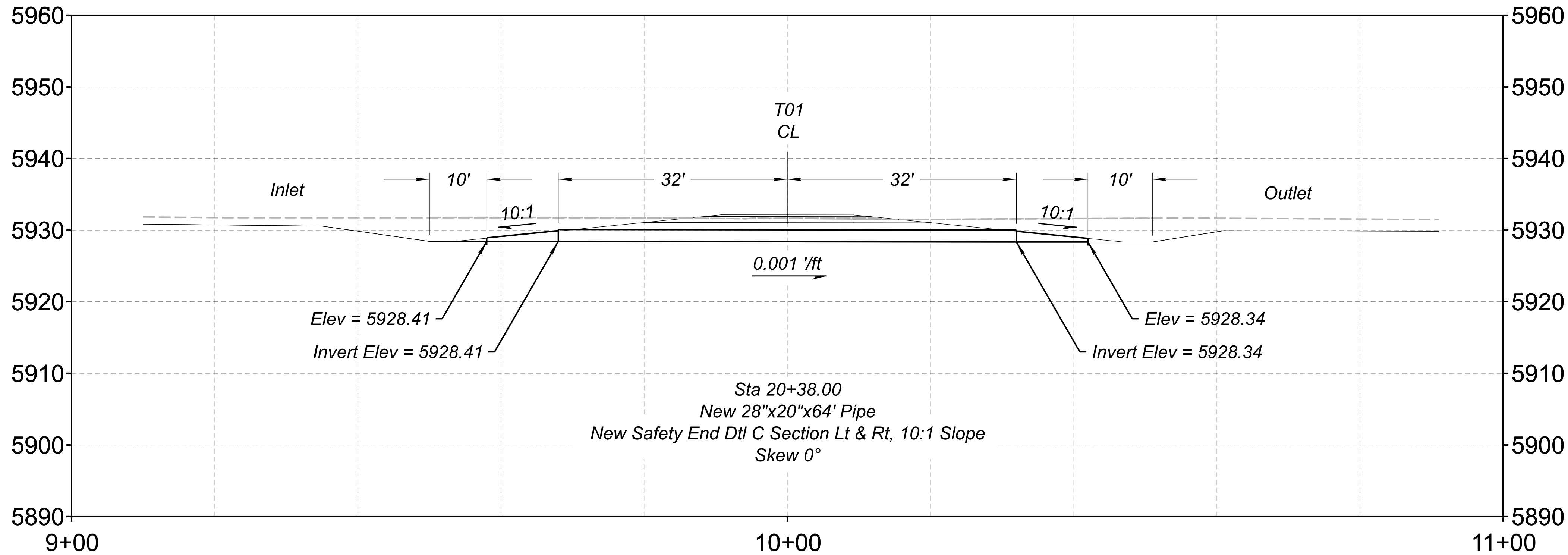
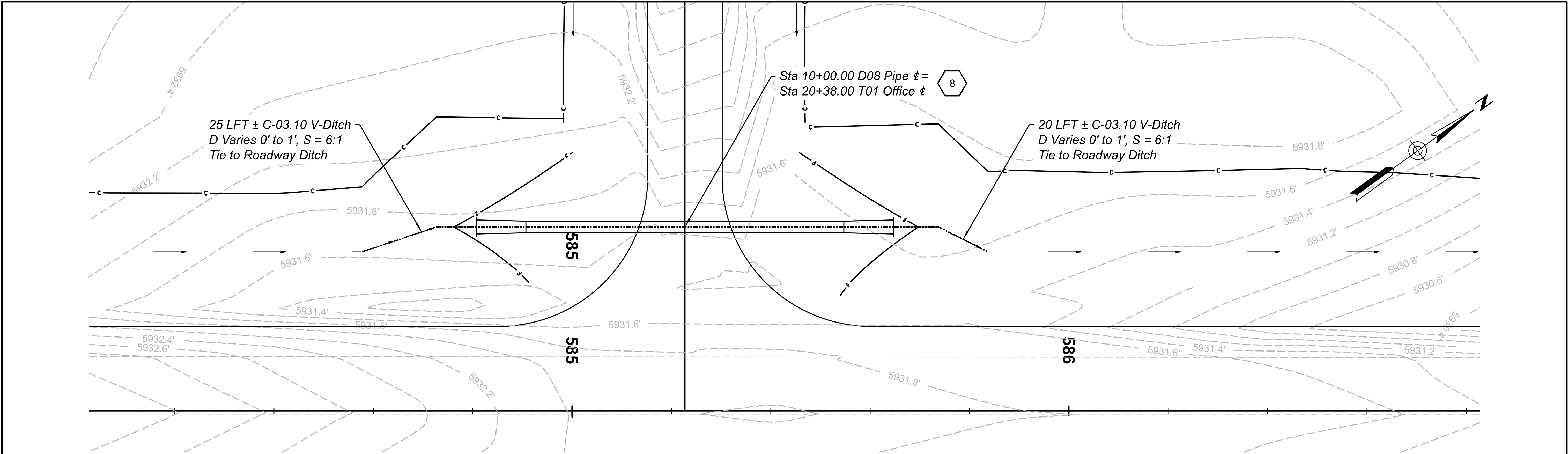


	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNES	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

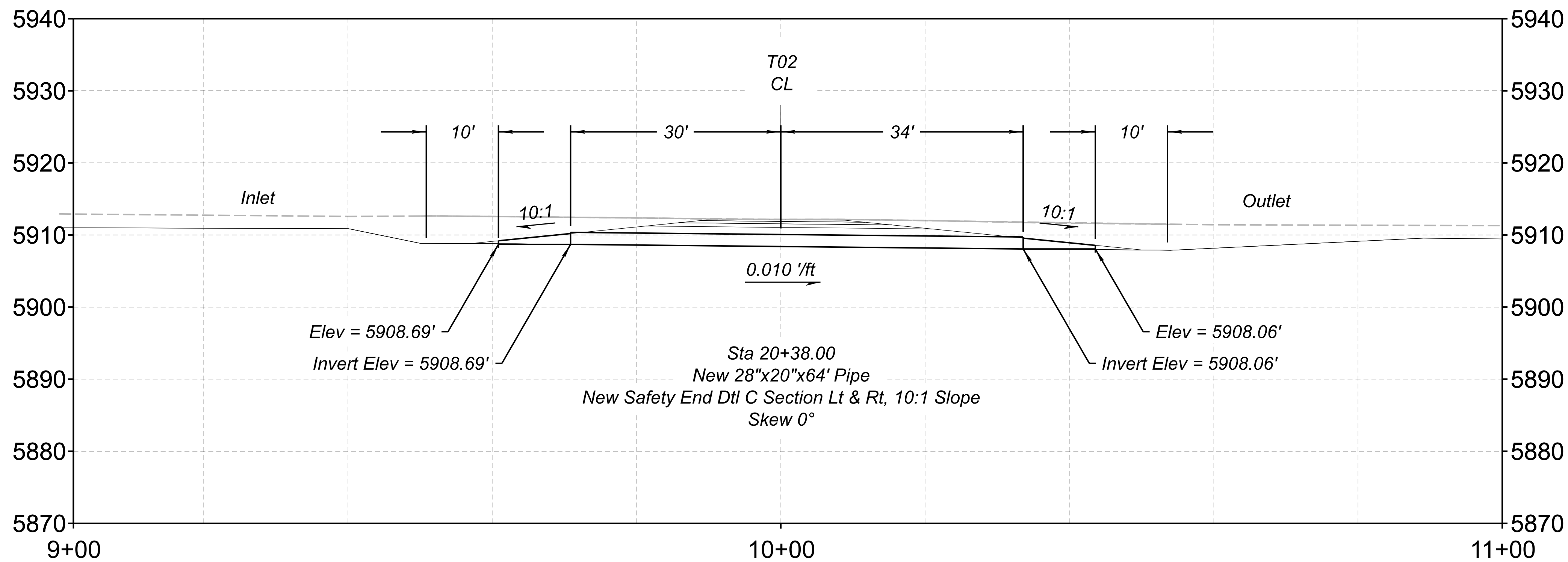
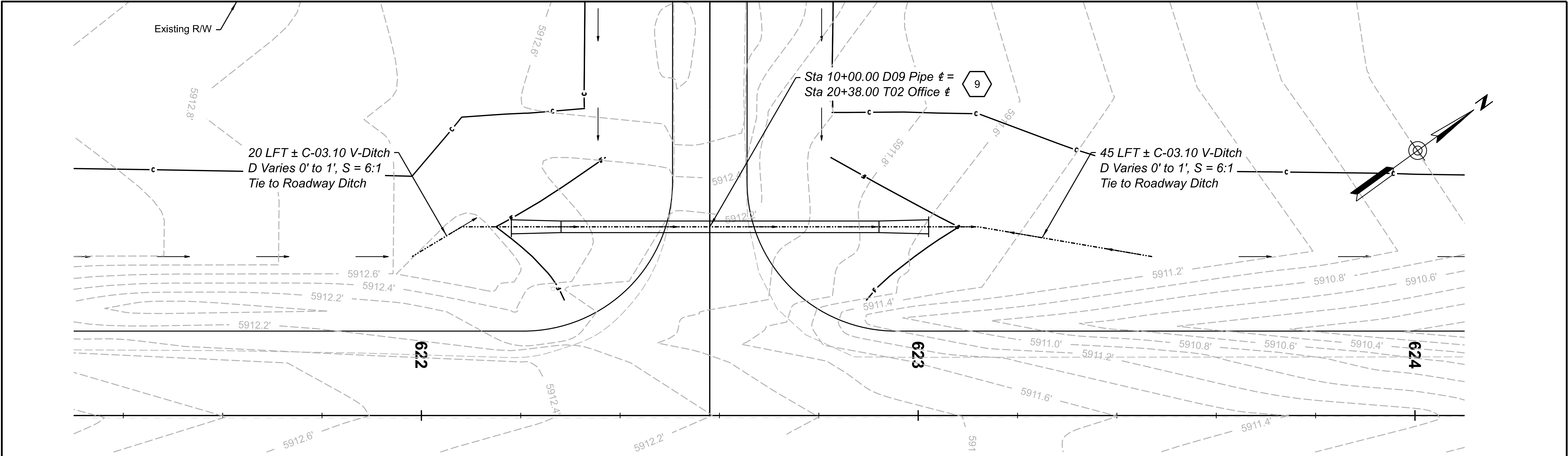
DETAIL D07c

ROUTE SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 17	TOTAL SHEETS 48	RECORD DRAWING
MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 1	
STRUCTURE NO.	TRACS NO. F0661 01C					____ OF ____	



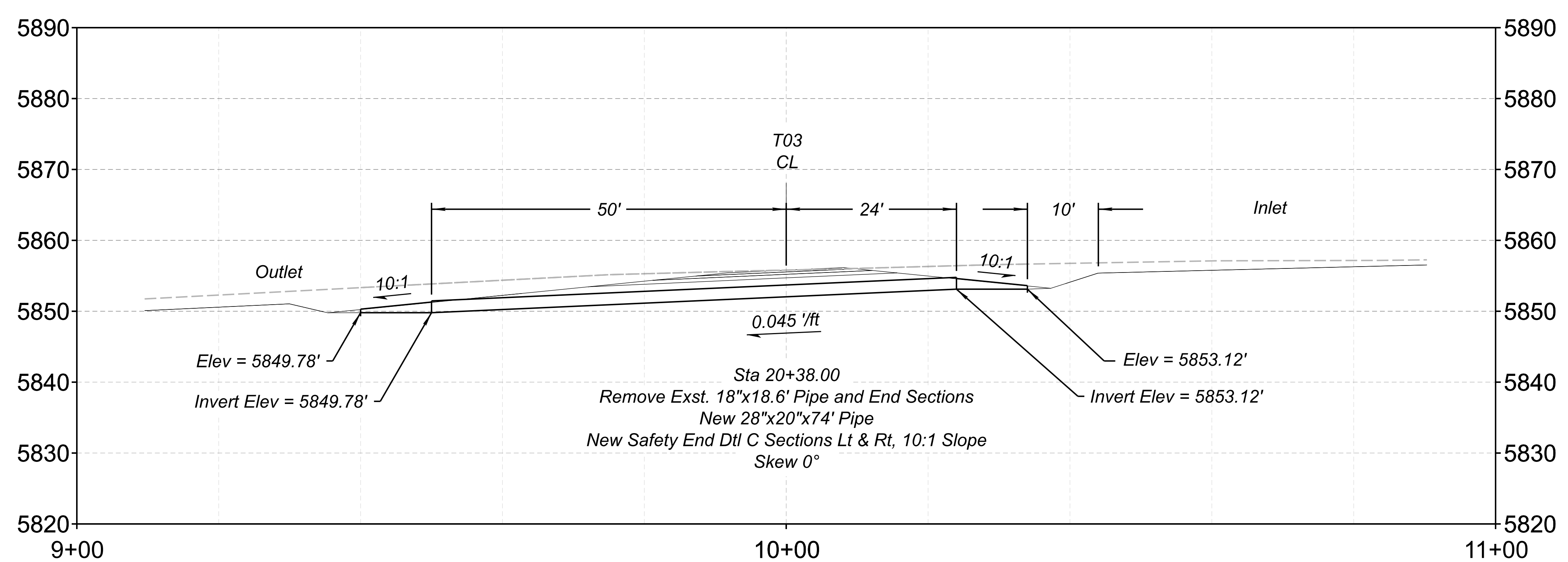
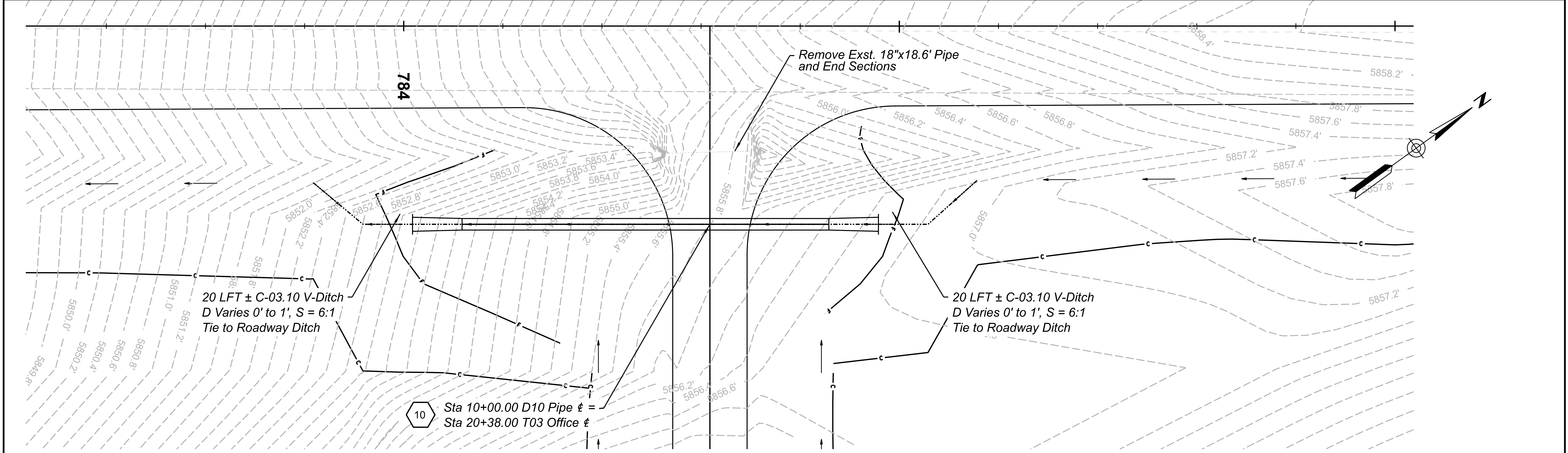
DETAIL D08

	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	18	TOTAL SHEETS	48	RECORD DRAWING		
	DRAWN	N. H. & M. S.	05/25		MILEPOST			LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE												SHEET 1 OF 1
	CHECKED	N. HARNESS	05/25		DETAIL D08	STRUCTURE NO.	TRACS NO. F0661 01C										___ OF ___			
	TEAM LEADER	E. EGGEN	05/25																	



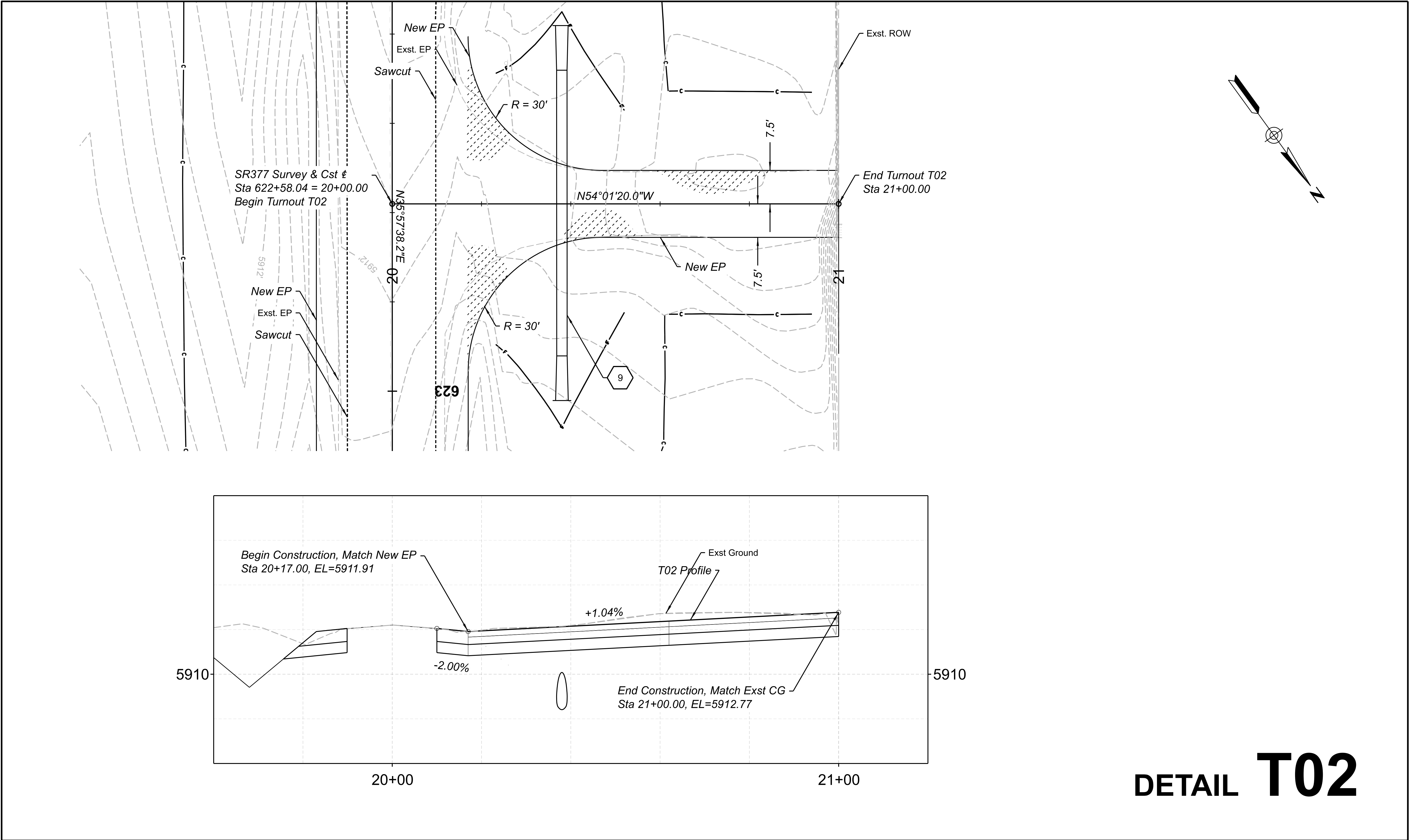
DETAIL D09

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	DRAWN	N. H. & M. S.	05/25		MILEPOST			MP 8 - PHOENIX PARK WASH, S OF DRY LAKE											SHEET 1 OF 1												
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		TRACS NO. F0661 01C																								
	TEAM LEADER	E. EGGEN	05/25		DETAIL D09																										



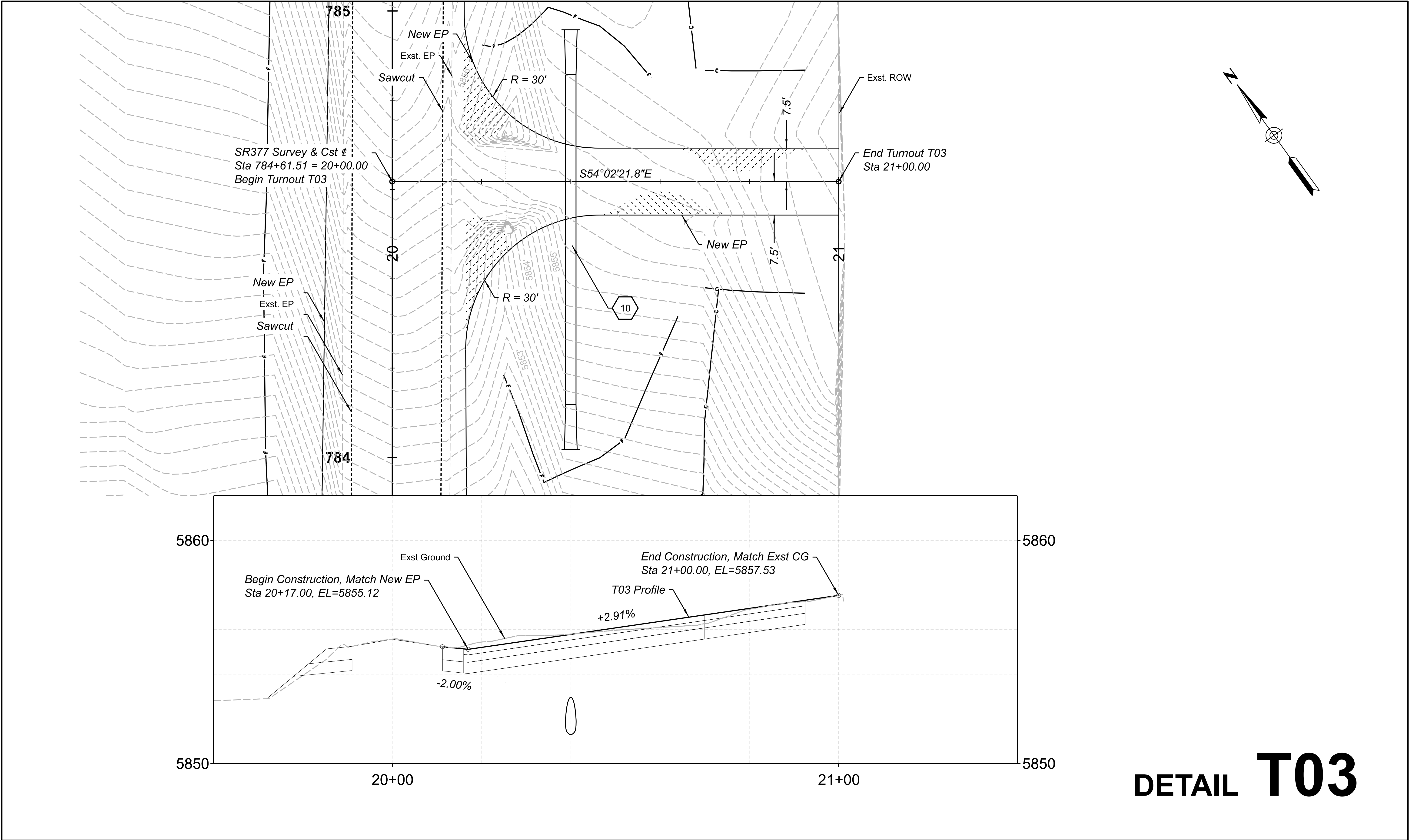
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		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	N. H. & M. S.	05/25						377 NA 008	377-A(203)T	20	48	
	DRAWN	N. H. & M. S.	05/25		MILEPOST		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE				SHEET 1 OF 1		
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.								
	TEAM LEADER	E. EGGEN	05/25		DETAIL D10		TRACS NO. F0661 01C				___ OF ___		



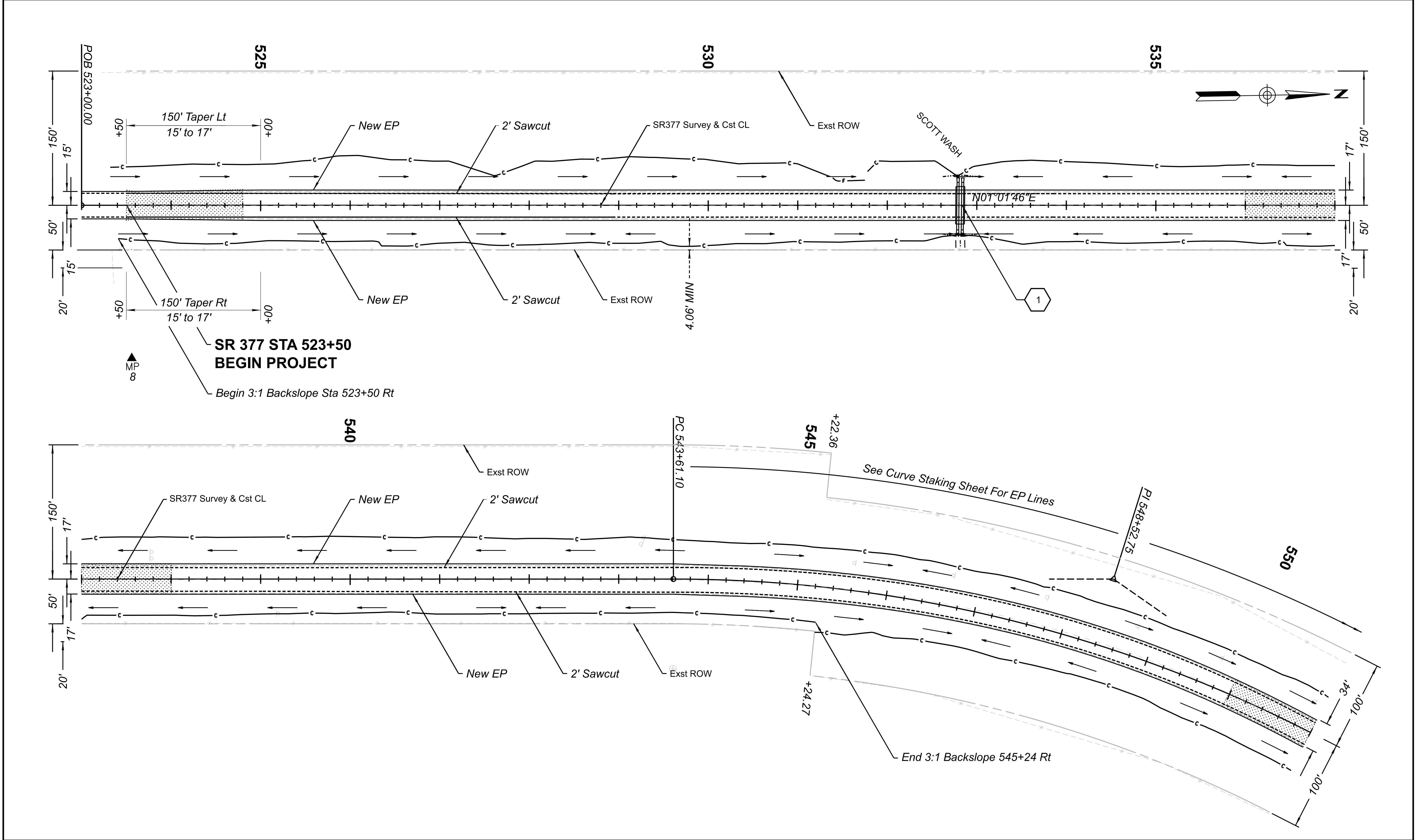
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	DRAWN	N. H. & M. S.	05/25		MILEPOST						LOCATION	MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 1	
	CHECKED	N. HARNESS	05/25		DETAIL T02	STRUCTURE NO.		TRACS NO. F0661 01C							___ OF ___			
	TEAM LEADER	E. EGGEN	05/25															

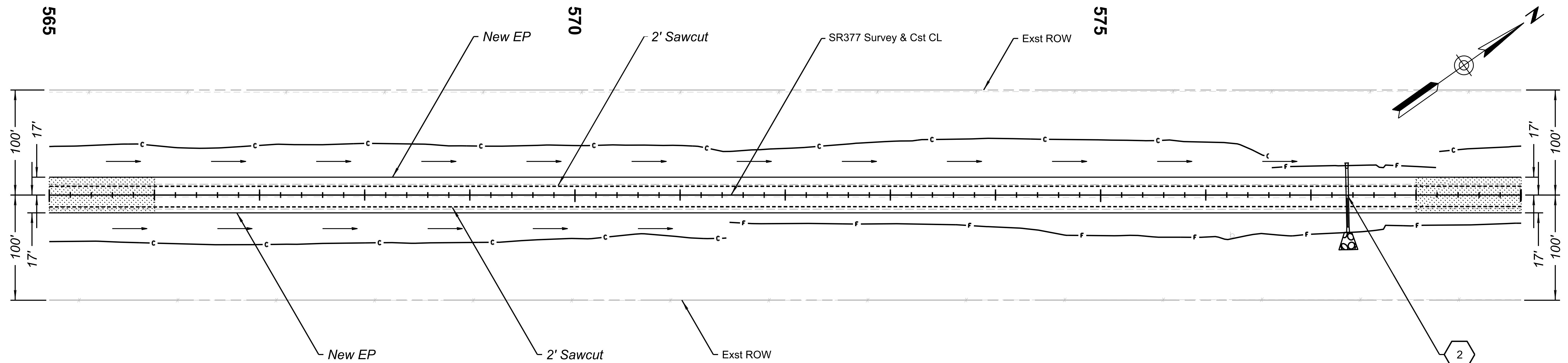
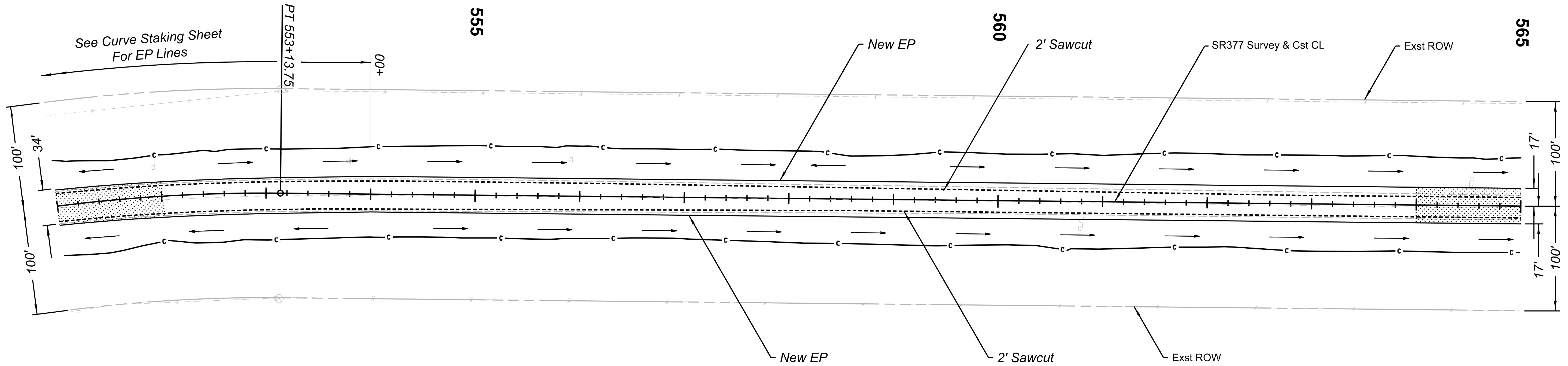


DETAIL T03

	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	23	TOTAL SHEETS	48	RECORD DRAWING
	DRAWN	N. H. & M. S.	05/25		MILEPOST			LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE										SHEET 1 OF 1
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		TRACS NO. F0661 01C		____ OF ____									
	TEAM LEADER	E. EGGEN	05/25															



		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	N. H. & M. S.	05/25		SR 377			377 NA 008	377-A(203)T	24	48	
	DRAWN	N. H. & M. S.	05/25		MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						
	CHECKED	N. HARNES	05/25									
	TEAM LEADER	E. EGGEN	05/25			SHEET 1 OF 10						
				PLAN SHEET STA 523+00 TO 551+00	STRUCTURE NO.	TRACS NO. F0661 01C		___ OF ___				



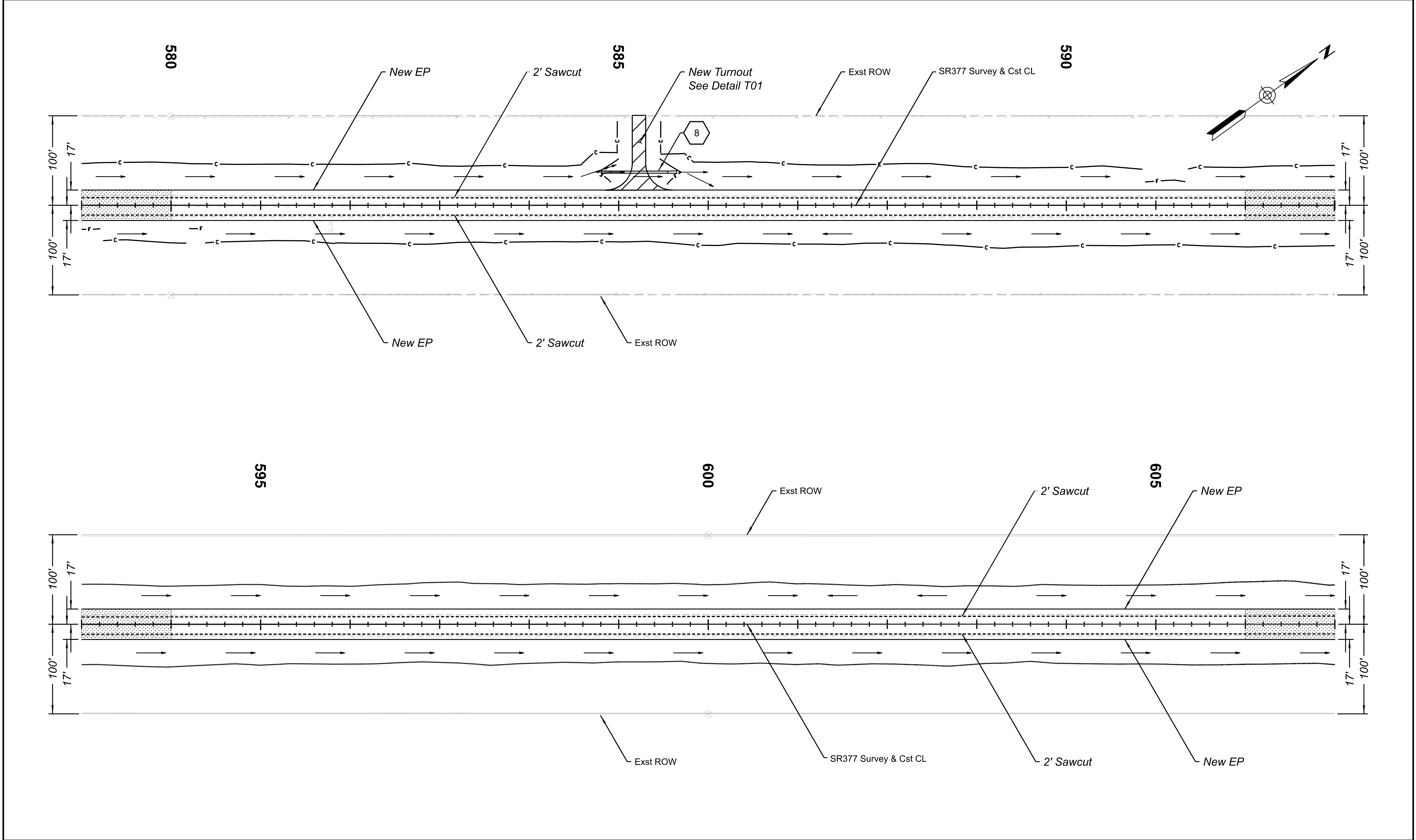
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DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

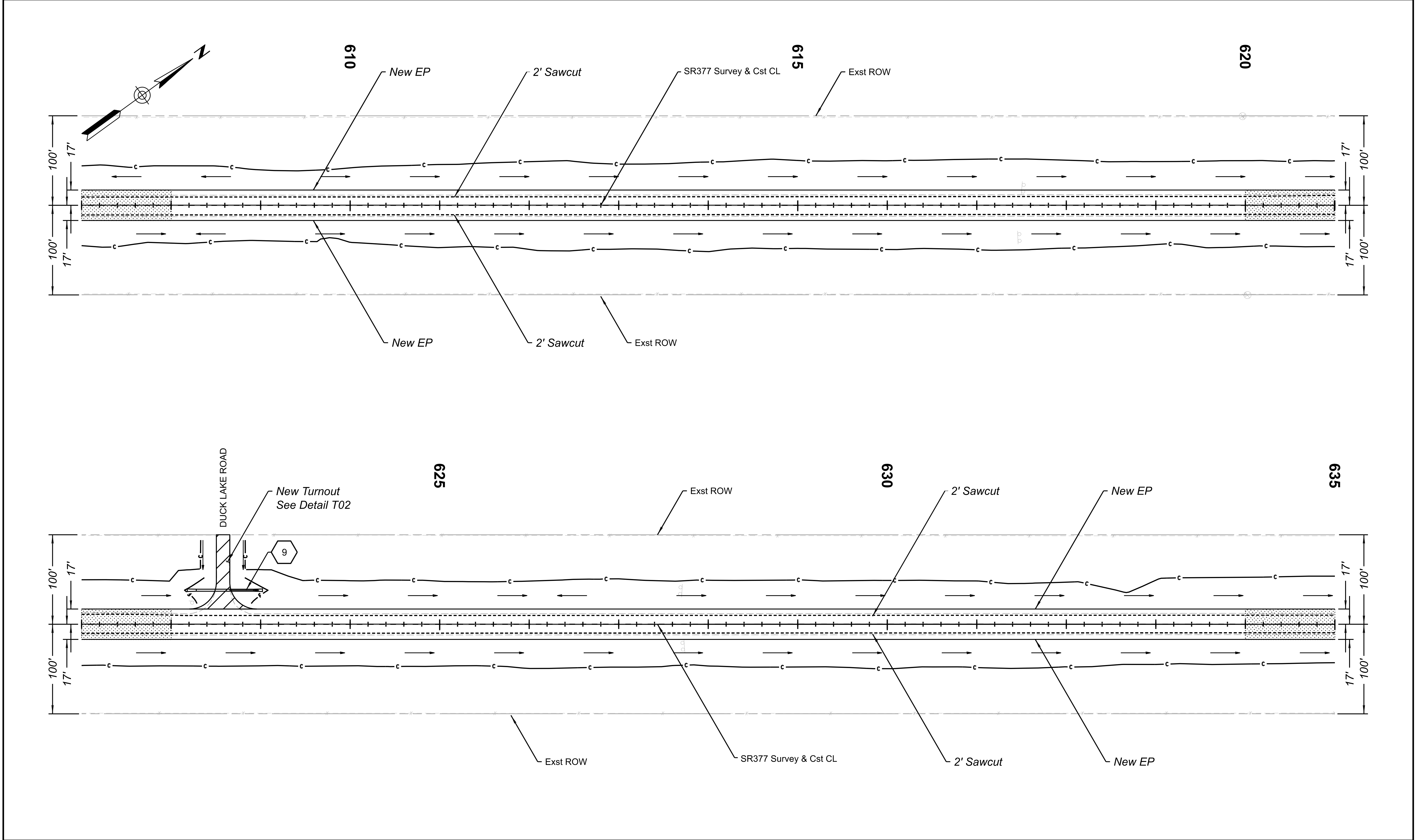
PLAN SHEET
STA 551+00 TO 579+00

ROUTE	SR 377
MILEPOST	
STRUCTURE NO.	

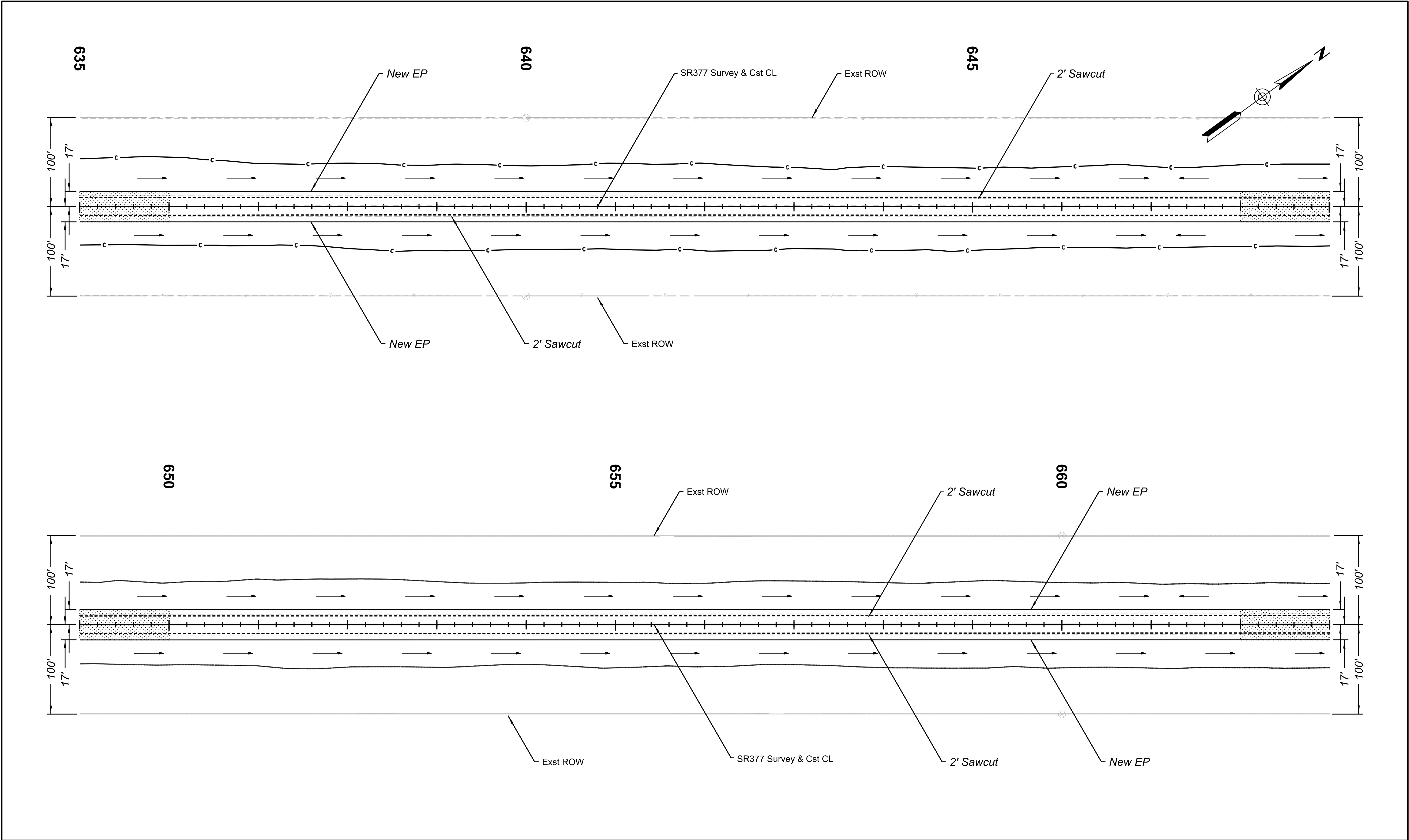
F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
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LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						SHEET 2 OF 10
TRACS NO. F0661 01C						OF



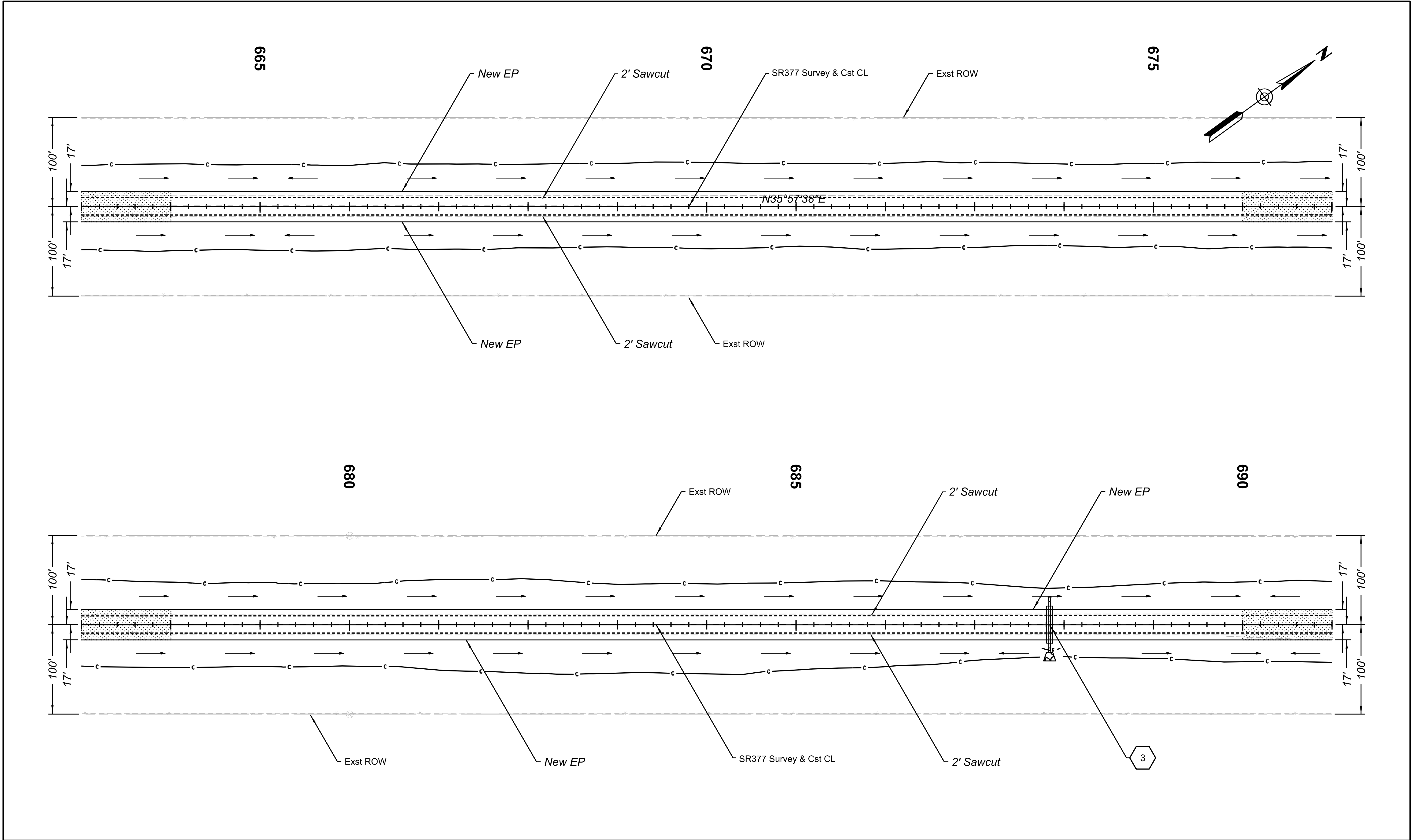
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	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		TRACS NO.	F0661 01C							OF			
	TEAM LEADER	E. EGGEN	05/25															



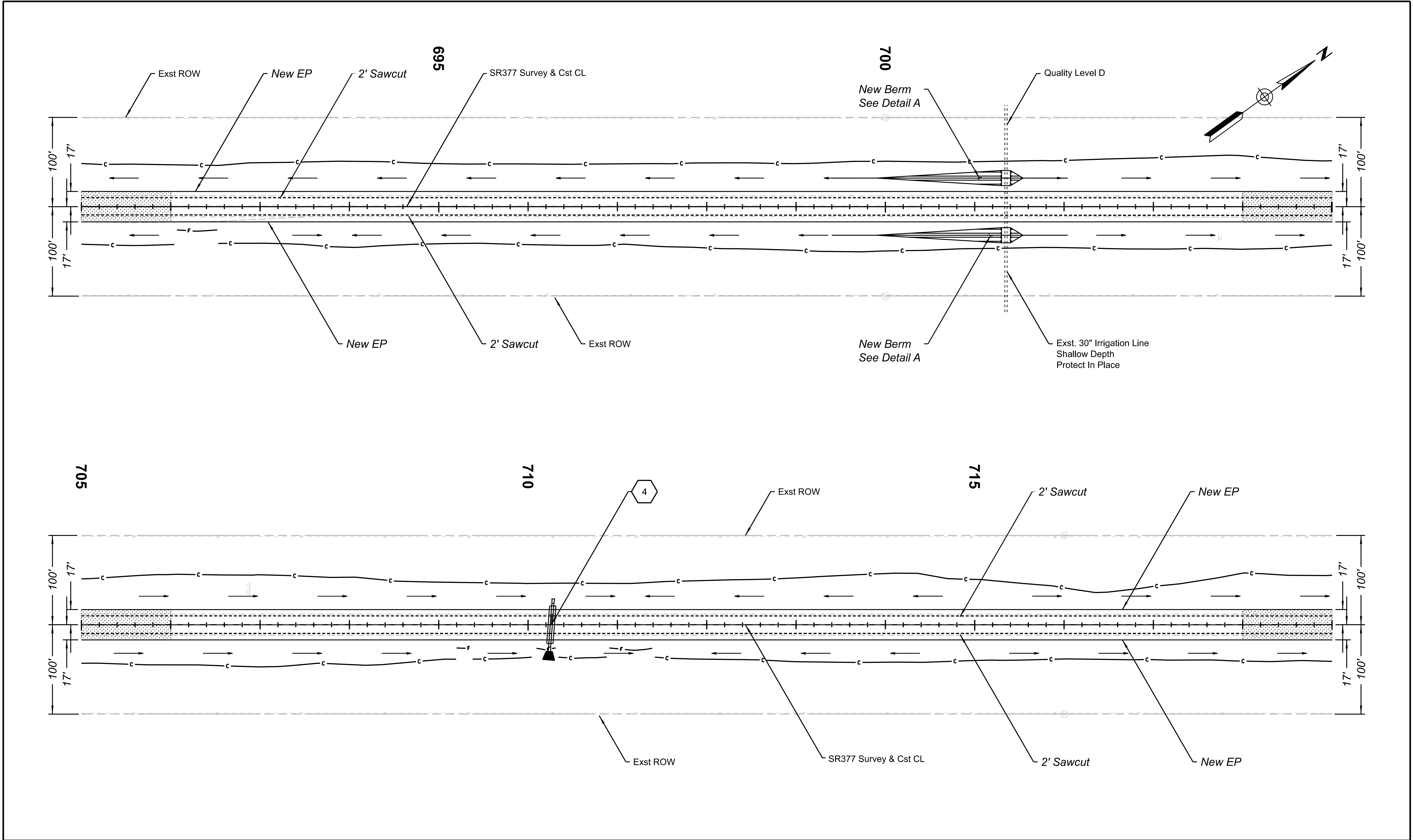
	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION PLAN SHEET STA 607+00 TO 635+00	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	27	TOTAL SHEETS	48	RECORD DRAWING
	DRAWN	N. H. & M. S.	05/25		MILEPOST													
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE										SHEET 4 OF 10	
	TEAM LEADER	E. EGGEN	05/25				TRACS NO. F0661 01C										OF	



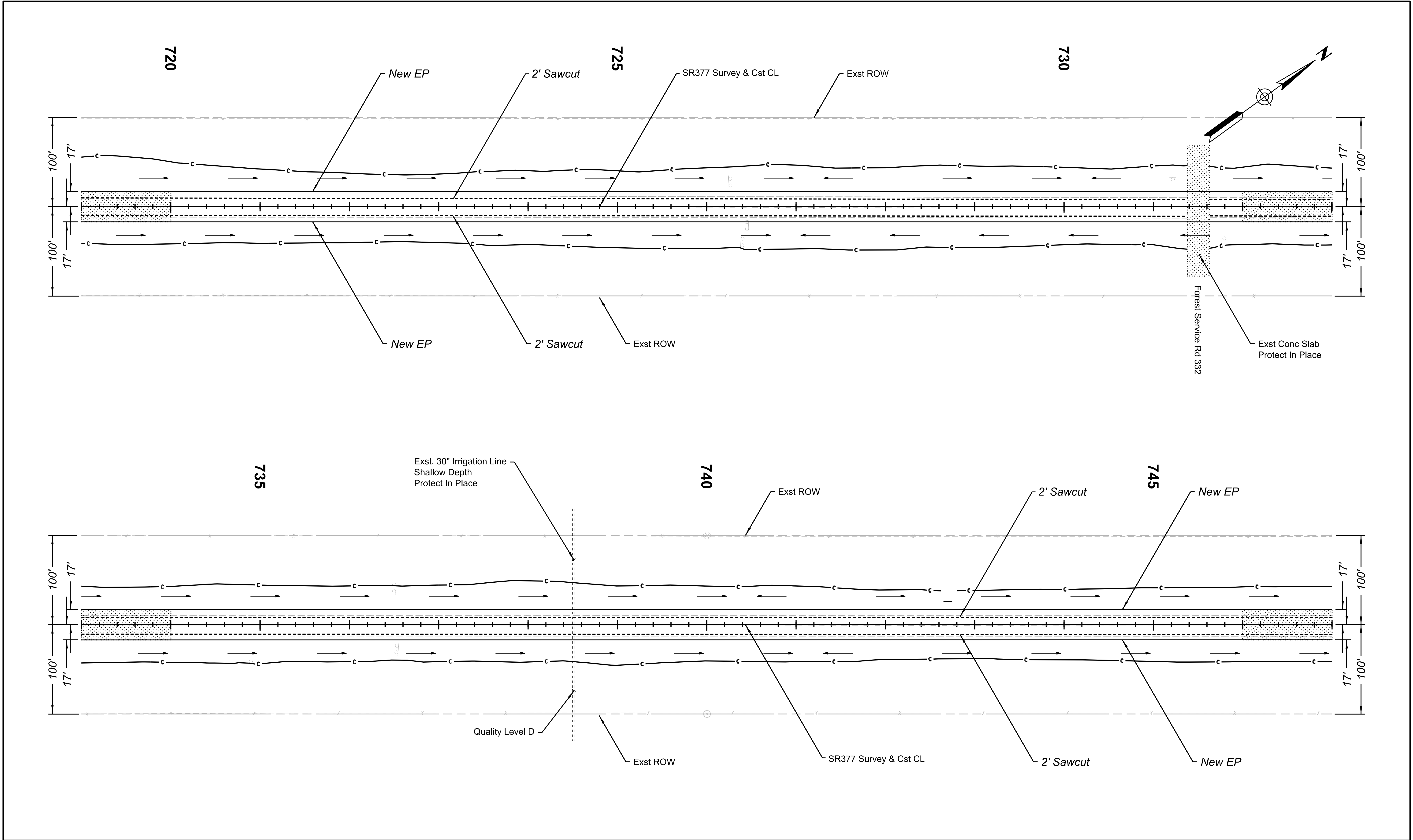
Professional Engineer 51596 ERICA RAE EGGEN Signed 5/21/25 ARIZONA, U.S.A.	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION PLAN SHEET STA 635+00 TO 663+00	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	28	TOTAL SHEETS	48	RECORD DRAWING	
	DRAWN	N. H. & M. S.	05/25		MILEPOST														
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE										SHEET 5 OF 10		
	TEAM LEADER	E. EGGEN	05/25				TRACS NO. F0661 01C										OF		



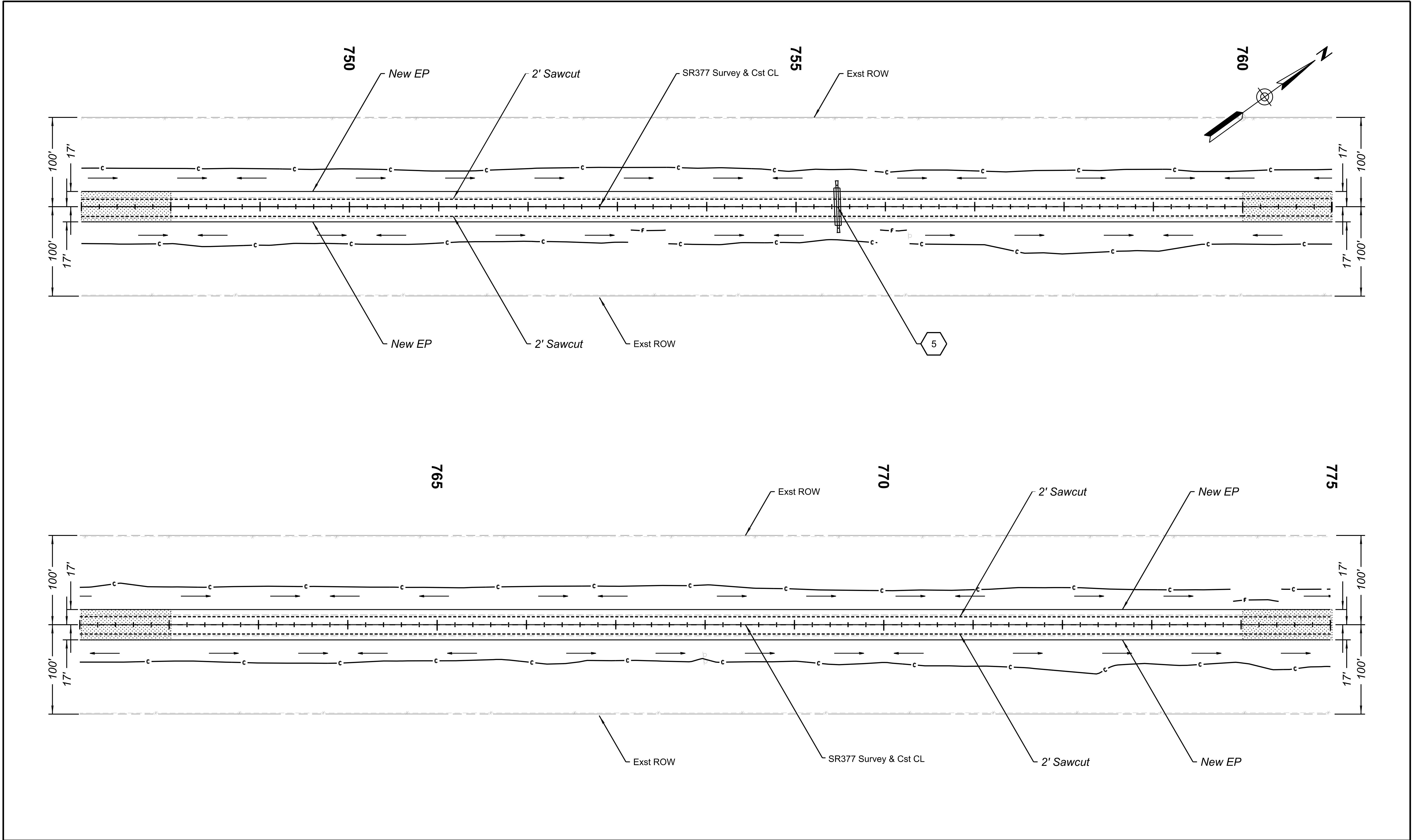
Professional Engineer 51596 ERICA RAE EGGEN Signed 5/21/25 ARIZONA, U.S.A.	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION PLAN SHEET STA 663+00 TO 691+00	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	29	TOTAL SHEETS	48	RECORD DRAWING	
	DRAWN	N. H. & M. S.	05/25		MILEPOST														
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE										SHEET 6 OF 10		
	TEAM LEADER	E. EGGEN	05/25				TRACS NO. F0661 01C										OF		



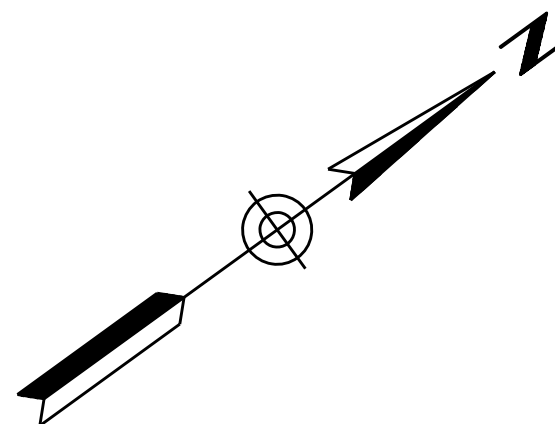
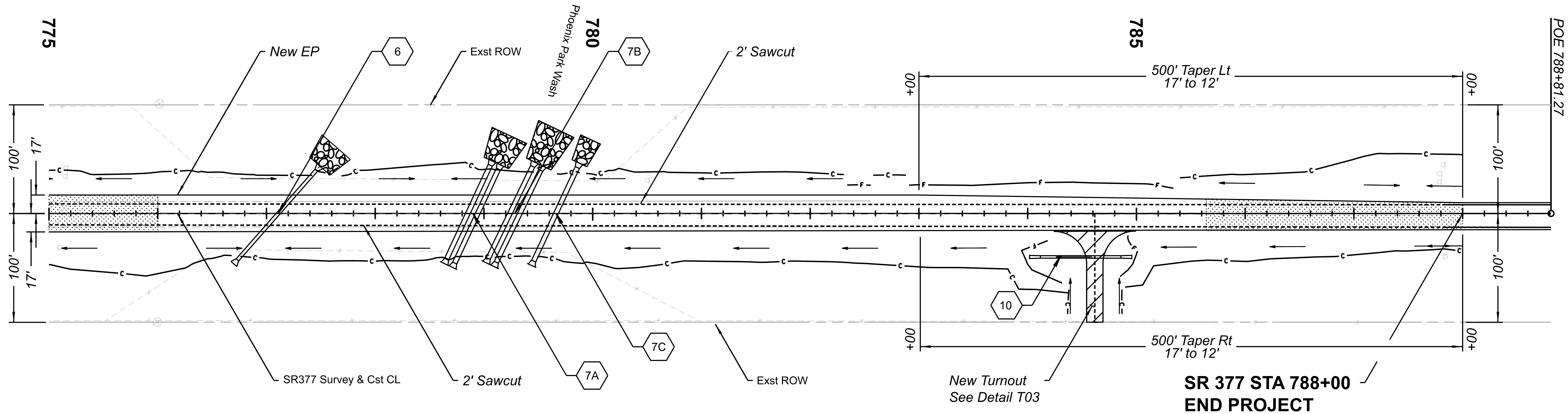
		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	N. H. & M. S.	05/25		SR 377							
	DRAWN	N. H. & M. S.	05/25		MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 7 OF 10	
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.	TRACS NO. F0661 01C		___ OF ___				
	TEAM LEADER	E. EGGEN	05/25	PLAN SHEET								
				STA 691+00 TO 719+00								



	DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION				ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DRAWN	N. H. & M. S.	05/25					SR 377		ARIZ.	377 NA 008	377-A(203)T	31	48	
	CHECKED	N. HARNESS	05/25	PLAN SHEET STA 719+00 TO 747+00				MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 8 OF 10	
	TEAM LEADER	E. EGGEN	05/25					STRUCTURE NO.	TRACS NO. F0661 01C					OF	



	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION PLAN SHEET STA 747+00 TO 775+00	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	32	TOTAL SHEETS	48	RECORD DRAWING
	DRAWN	N. H. & M. S.	05/25		MILEPOST		LOCATION	MP 8 - PHOENIX PARK WASH, S OF DRY LAKE							SHEET 9 OF 10			
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.		TRACS NO.	F0661 01C							___ OF ___			
	TEAM LEADER	E. EGGEN	05/25															



	NAME	DATE
DESIGN	N. H. & M. S.	05/25
DRAWN	N. H. & M. S.	05/25
CHECKED	N. HARNESS	05/25
TEAM LEADER	E. EGGEN	05/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADWAY DESIGN SECTION

PLAN SHEET
STA 775+00 TO 788+81.27

ROUTE
SR 377

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE
ARIZ.

PROJECT NO.
377 NA 008

FEDERAL ID NO.
377-A(203)T

SHEET
NO. 33

TOTAL
SHEETS 48

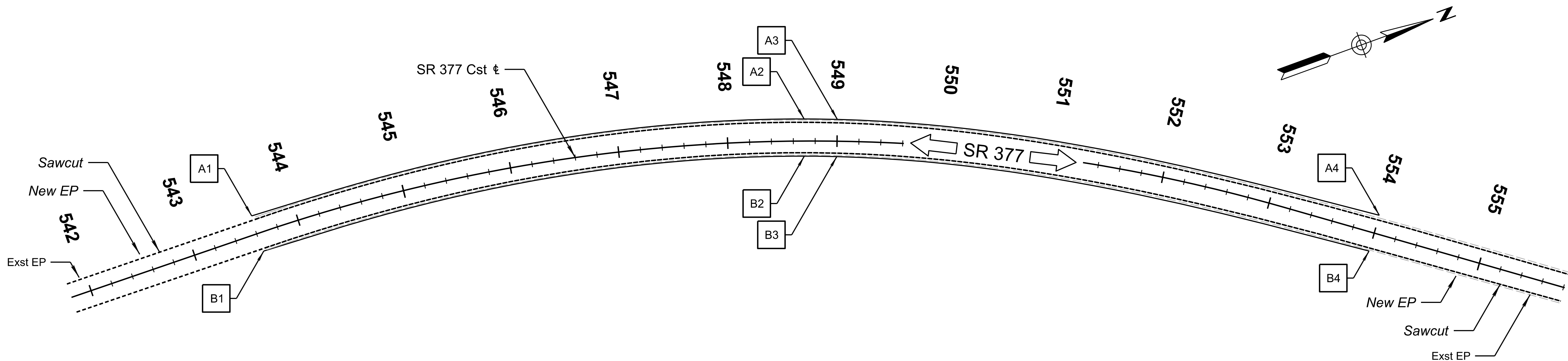
RECORD DRAWING

LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

TRACS NO. F0661 01C

SHEET 10 OF 10

OF



SR 377 Curve EP Lt				
Point	Station, Offset		Point	Station, Offset
A1	543+61.10,	17.00 Lt	A3	549+00.00, 19.94 Lt
	543+75.00,	16.66 Lt		549+25.00, 19.54 Lt
	544+00.00,	16.37 Lt		549+50.00, 19.10 Lt
	544+25.00,	16.44 Lt		549+75.00, 18.62 Lt
	544+50.00,	16.65 Lt		550+00.00, 18.07 Lt
	544+75.00,	16.90 Lt		550+25.00, 17.39 Lt
	545+00.00,	17.23 Lt		550+50.00, 16.74 Lt
	545+25.00,	17.55 Lt		550+75.00, 16.14 Lt
	545+50.00,	17.87 Lt		551+00.00, 15.53 Lt
	545+75.00,	18.22 Lt		551+25.00, 14.95 Lt
	546+00.00,	18.61 Lt		551+50.00, 14.49 Lt
	546+25.00,	18.93 Lt		551+75.00, 14.12 Lt
	546+50.00,	19.25 Lt		552+00.00, 13.86 Lt
	546+75.00,	19.56 Lt		552+25.00, 13.74 Lt
	547+00.00,	19.86 Lt		552+50.00, 13.80 Lt
	547+25.00,	20.05 Lt		552+75.00, 14.03 Lt
	547+50.00,	20.22 Lt		553+00.00, 14.48 Lt
	547+75.00,	20.36 Lt		553+25.00, 15.08 Lt
	548+00.00,	20.45 Lt		553+50.00, 15.68 Lt
	548+25.00,	20.38 Lt		553+75.00, 16.34 Lt
A2	548+50.00,	20.29 Lt	A4	554+00.00, 17.00 Rt
	548+75.00,	20.16 Lt		

SR 377 Curve EP Rt				
Point	Station, Offset		Point	Station, Offset
B1	543+61.10,	17.00 Rt	B3	549+00.00, 14.06 Rt
	543+75.00,	17.33 Rt		549+25.00, 14.46 Rt
	544+00.00,	17.63 Rt		549+50.00, 14.90 Rt
	544+25.00,	17.56 Rt		549+75.00, 15.38 Rt
	544+50.00,	17.35 Rt		550+00.00, 15.93 Rt
	544+75.00,	17.10 Rt		550+25.00, 16.61 Rt
	545+00.00,	16.77 Rt		550+50.00, 17.26 Rt
	545+25.00,	16.45 Rt		550+75.00, 17.86 Rt
	545+50.00,	16.13 Rt		551+00.00, 18.47 Rt
	545+75.00,	15.78 Rt		551+25.00, 19.05 Rt
	546+00.00,	15.39 Rt		551+50.00, 19.51 Rt
	546+25.00,	15.07 Rt		551+75.00, 19.88 Rt
	546+50.00,	14.75 Rt		552+00.00, 20.14 Rt
	546+75.00,	14.44 Rt		552+25.00, 20.26 Rt
	547+00.00,	14.14 Rt		552+50.00, 20.20 Rt
	547+25.00,	13.95 Rt		552+75.00, 19.97 Rt
	547+50.00,	13.78 Rt		553+00.00, 19.52 Rt
	547+75.00,	13.64 Rt		553+25.00, 18.92 Rt
	548+00.00,	13.56 Rt		553+50.00, 18.32 Rt
	548+25.00,	13.62 Rt		553+75.00, 17.66 Rt
B2	548+50.00,	13.71 Rt	B4	554+00.00, 17.00 Lt
	548+75.00,	13.84 Rt		

- Notes
- 1. Sawcut is 2 ft inside of existing pavement
 - 2. Total roadway width is 34 ft

	DESIGN	N. H. & M. S.	05/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADWAY DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	34	TOTAL SHEETS	48	RECORD DRAWING
	DRAWN	N. H. & M. S.	05/25		MILEPOST			LOCATION	MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 1				
	CHECKED	N. HARNESS	05/25		STRUCTURE NO.			TRACS NO.	F0661 01C					OF				
	TEAM LEADER	E. EGGEN	05/25															

PAVEMENT MARKING NOTES:

1.

It is the contractor's responsibilty to ensure that the final surface course is placed so that the striping is offset 1 foot clear of the construction joint, unless otherwise directed by the Engineer.
2.

The contractor shall be responsible for the layout and installation of permanent pavement markings on the final surface course following points that have been set no more than 50 feet apart along the lines to be striped.
3.

The dimensions shown to pavement striping are to the center of striping, or in the case of double striping, to the center of the double striping.
4.

At the completion of the final pavement surface for each shift, edge lines and center lines shall be striped with one application of waterborne Type I pavement marking paint at the locations of permanent striping. The paint shall have a minimum thickness of 15 mils wet. All painted striping shall be 4 inches wide.
5.

Final striping shall be a two-part epoxy pavement marking material placed at a minimum of 30 days after the initial striping. The two-part material shall conform to the requirements of the Special Provisions.
6.

When stripe obliteration is necessary, it shall be accomplished by approved methods. Painting over striping, removal of pavement, and overlaying pavement do not constitute stripe obliteration.
7.

The pavement marking drawings are schematic only and not to scale. The contractor shall follow all dimensions and details when installing pavement markings.
8.

The contractor shall clean the roadway surfaces to the satisfaction of the Engineer, by sweeping and air-jet blowing, immediately prior to the placing of all pavement markings. The roadway surface shall be dry and the air and pavement temperatures shall not be less than 40 degrees F and the air temperature shall not be less than 35 degrees F for the placement of epoxy pavement markings.
9.

The contractor shall install new white-sheeted delineators (F1W) along the Curve, from PC 543+61.10 to PT 553+13.75, as shown on these plans within the project limits in accordance with Std. Dwg. M-26. Each delineator shall consist of a two-piece or three-piece flexible delineator assembly with a concrete anchor foundation. The contractor shall also remove the existing delineators or delineator posts without reflectors--including foundations with or without posts -- within the project limits.
10.

The contractor shall break the center lines and edge lines adjacent to turnouts across any intersections with dedicated roadways or as otherwise directed by the Engineer.

11.

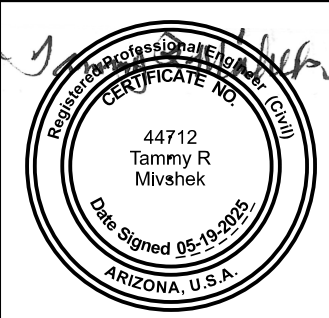
The contractor shall notify the Engineer two weeks prior to the application of any pavement markings to schedule a “NO PASSING ZONE” survey by State forces. The “NO PASSING ZONE” survey shall supersede the permanent pavement marking plans. The contractor shall contact Dustin Bouchet of North Central Signing and Striping at (928) 925-7274 to schedule the survey.
12.

The contractor shall install ground-in rumble strips along the edge lines and shall install continuous centerline rumble strips between MP 8.00 and MP 13.00 along SR 377. All rumble strips shall conform to the details of Std. Dwg. M-22, except that the contractor shall not provide spacing for Type D RPMs, as shown in Std. Dwg. M-22, in the continuous centerline rumble strip. The contractor shall not install rumble strips in any roadway surface that is a concrete surface. The contractor shall install the rumble strips approximately three weeks prior to the application of the final pavement markings.
13.

Centerline rumble strips shall stop 25 ft. in advance of an intersection and resume 25 ft. after an intersection.
14.

The Engineer may modify the pavement marking plans.

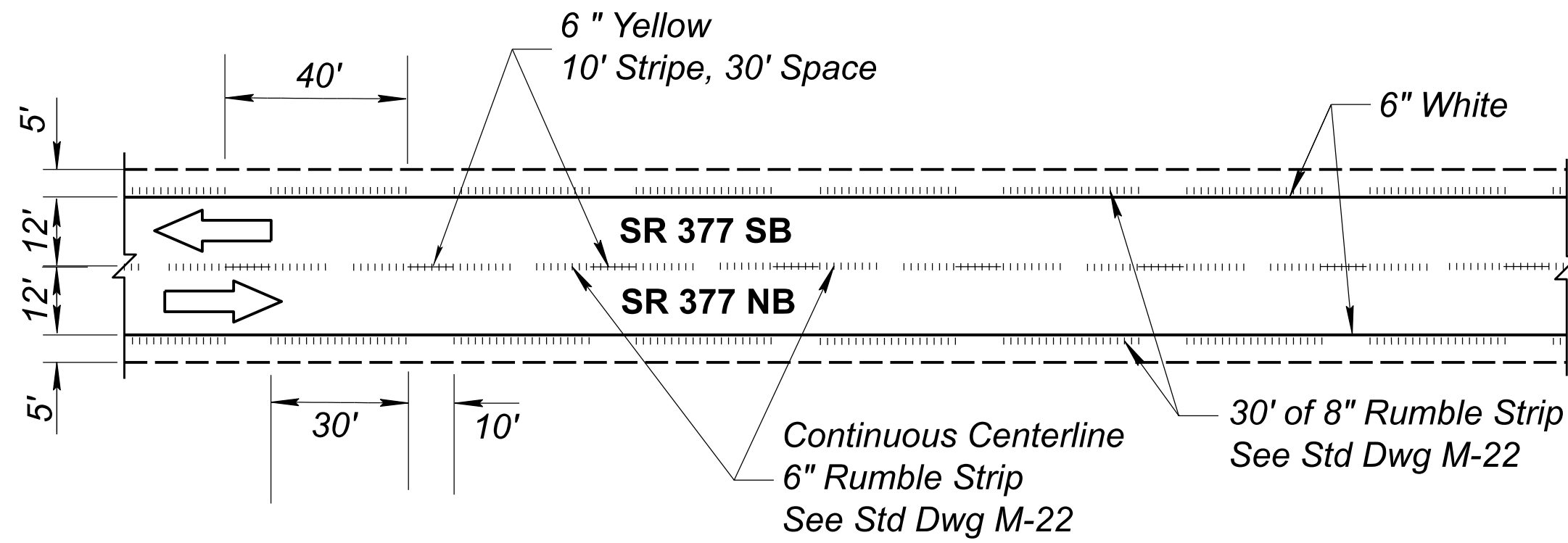
APPROXIMATE PAVEMENT MARKING QUANTITIES			
ITEM NO.	ITEM DESCRIPTION	UNIT	QUANTITY
2020116	Remove (Delineator Assembly with/without Concrete Foundation)	Each	60
7030026	Delineator Assembly (Flexible) (Concrete Foundation) (F1W)	Each	26
7080201	Waterborne-Type 1 Pavement Marking (Painted) (White)	L. Ft.	107,400
7080202	Waterborne-Type 1 Pavement Marking (Painted) (Yellow)	L. Ft.	30,600
7090001	Dual Component Pavement Marking (White Epoxy)	L. Ft.	78,900
7090002	Dual Component Pavement Marking (Yellow Epoxy)	L. Ft.	23,000
9280034	Ground-In Rumble Strip (6 inch)	L. Ft.	15,300
9280036	Ground-In Rumble Strip (8 inch)	L. Ft.	39,000



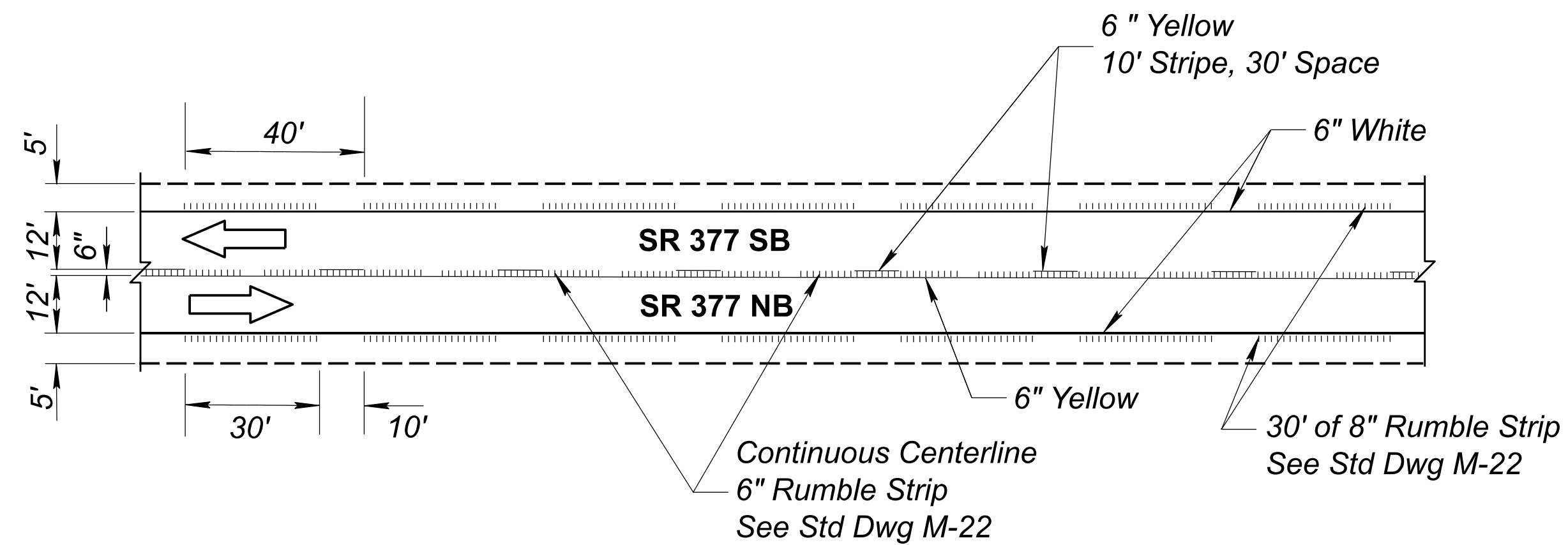
	NAME	DATE
DESIGN	T Mivshak	5/25
DRAWN	T Mivshak/Q. Zhou	5/25
CHECKED	T Mivshak	5/25
TEAM LEADER	R Gluscevic	5/25

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE SR 377
PAVEMENT MARKINGS NOTES	MILEPOST
	STRUCTURE NO.

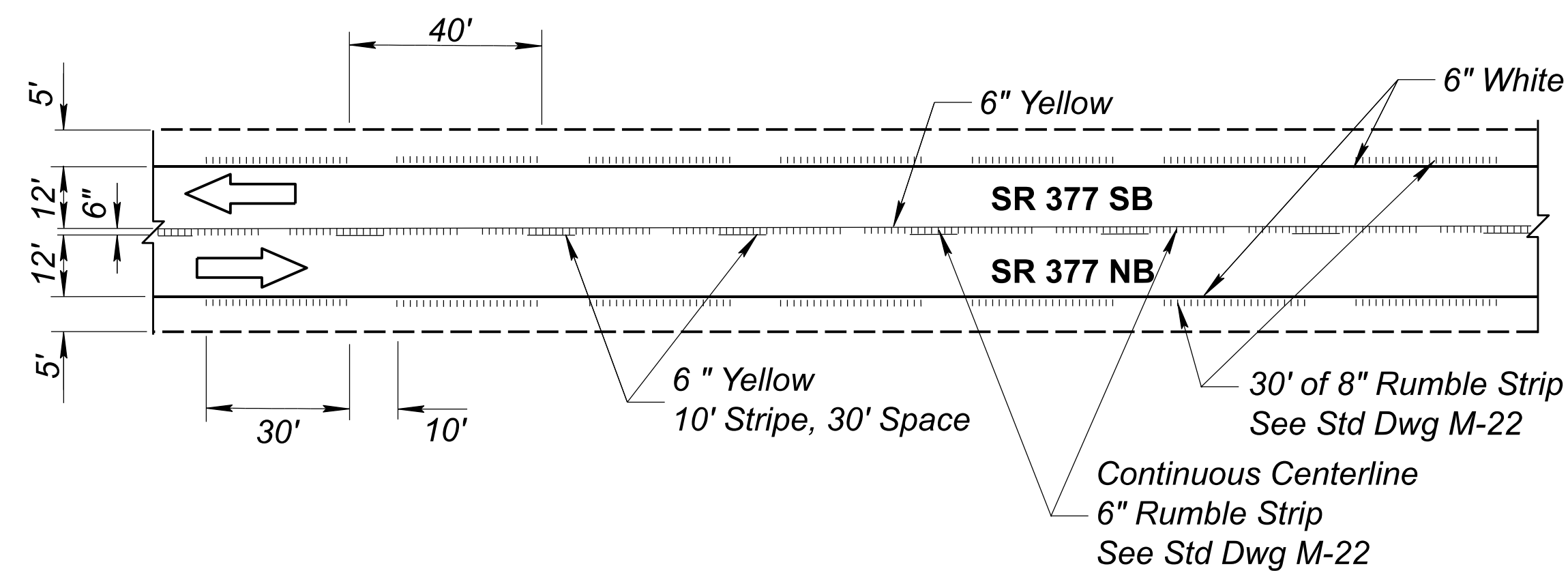
F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 35	TOTAL SHEETS 48	RECORD DRAWING
LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE						SHEET 1 OF 3
TRACS NO. F0661 01C						____ OF ____



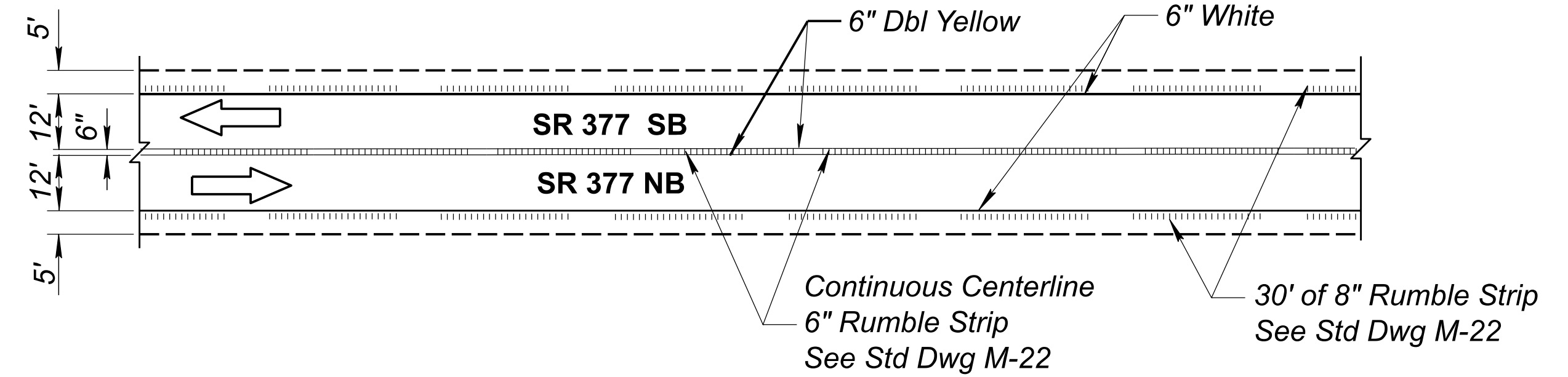
**PASSING ZONE BOTH DIRECTIONS - TWO WAY TRAFFIC
DETAIL A**



**NO PASSING ZONE NORTHBOUND - TWO WAY TRAFFIC
DETAIL B**



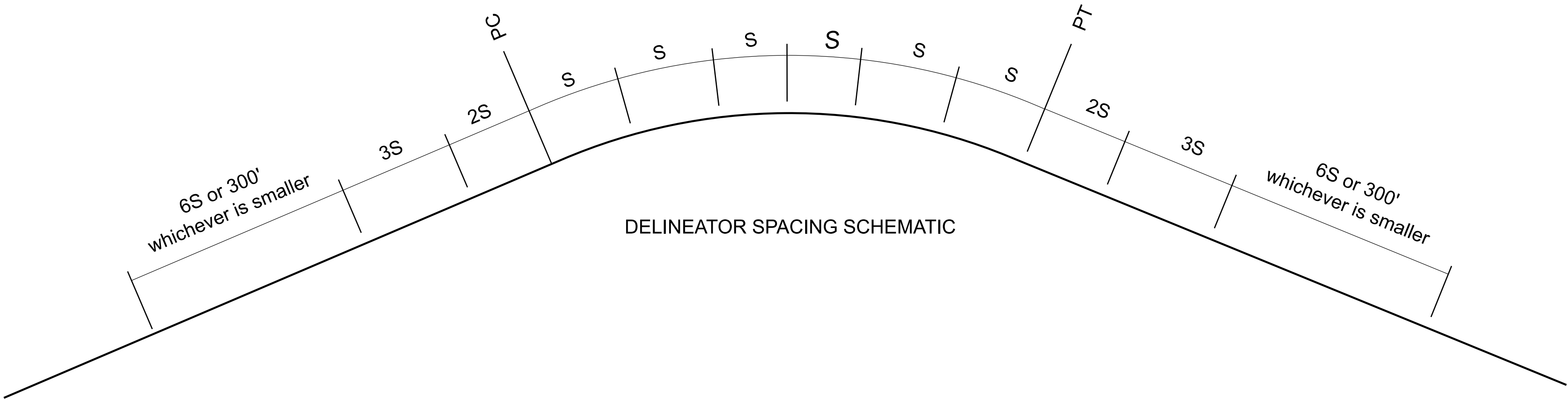
**NO PASSING ZONE SOUTHBOUND - TWO WAY TRAFFIC
DETAIL C**



**NO PASSING ZONE BOTH DIRECTIONS - TWO WAY TRAFFIC
DETAIL D**

Pavement Marking Schedule			
Begin MP	End MP	Striping Detail	Remarks
8	8.25	A	Passing Both Directions
8.25	8.46	B	Passing SB
8.46	8.49	D	No Passing Both Directions
8.49	8.70	C	Passing NB
8.70	8.78	A	Passing Both Directions
8.78	8.88	B	Passing SB
8.88	9.00	A	Passing Both Directions
9.00	9.10	C	Passing NB
9.10	9.77	A	Passing Both Directions
9.77	9.87	B	Passing SB
9.87	9.88	-	Duck Lake Rd Jct
9.88	9.98	C	Passing NB
9.98	11.47	A	Passing Both Directions
11.47	11.63	B	Passing SB
11.63	11.68	A	Passing Both Directions
11.68	11.83	C	Passing NB
11.83	11.84	D	No Passing Both Directions
11.84	11.93	B	Passing SB
11.93	11.94	-	Zeniff Rd Jct
11.94	12.04	C	Passing NB
12.04	12.76	A	Passing Both Directions
12.76	12.97	B	Passing SB
12.97	13.00	D	No Passing Both Directions

	DESIGN	T. Mivshek	5/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	36	TOTAL SHEETS	48	RECORD DRAWING	
	DRAWN	T. Mivshek/Q. Zhou	5/25		MILEPOST														
	CHECKED	T. Mivshek	5/25		STRUCTURE NO.														
	TEAM LEADER	R. Gluscevic	5/25																
				NO PASSING ZONE DETAILS (TYP)		MP 8 - PHOENIX PARK WASH, S OF DRY LAKE												SHEET 2 OF 3	
						TRACS NO. F0661 01C												OF	



F1W Delineators - Curve			
Spacing	Stationing	Left	Right
300'	538+21	X	X
2S	541+21	X	X
PC	543+61.10	X	X
S (120')	544+81	X	X
S (120')	546+01	X	X
S (120')	547+21	X	X
S (120')	548+41	X	X
S (120')	549+61	x	X
S (120')	550+81	X	X
S (120')	552+01	X	X
PT**	553+21	X	X
2S	550+81	X	X
300'	553+81	X	X

PT** = 553+13.75



	NAME	DATE
DESIGN	T Mivshak	5/25
DRAWN	T Mivshak/Q. Zhou	5/25
CHECKED	T Mivshak	5/25
TEAM LEADER	R Gluscevic	5/25

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE SR 377
	MILEPOST
	STRUCTURE NO.
DELINEATORS	

F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 37	TOTAL SHEETS 48	RECORD DRAWING
	MP 8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 3 OF 3
TRACS NO. F0661 01C						____ OF ____

SIGNING NOTES:

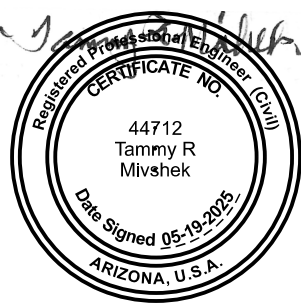
1. All signs shall be in compliance with the Manual on Uniform Traffic Control Devices (MUTCD), the ADOT Signing and Marking Standard Drawings, the Traffic Engineering Manual of Approved Signs, and the latest edition of the ADOT Traffic Engineering Guidelines and Processes.
2. The contractor shall contact North Central Regional Signing and Striping Section, Robert (Lee) Lund, at (928) 527-0899 at least five working days prior to final signing layout to coordinate the layout inspection.
3. Signs shown on the plans may not reflect actual field conditions. The contractor shall notify the Engineer of any signs not identified on the plans, and shall replace signs as directed by the Engineer and approved by North Central Regional Traffic Engineering.
4. The contractor shall inventory all signs to be covered and note damaged signs to the Engineer at the time of covering, at no additional cost to the Department. All signs damaged by covering shall be replaced or repaired, as approved by the Engineer, by the contractor at no additional cost to the Department.
5. All signs to be removed shall become the property of the contractor, except the W1-8 (chevrons) shall be returned to the District.
6. The sign locations and the post lengths are approximate. The contractor shall verify the sign locations and actual post lengths with the Engineer prior to installing signs.
7. The bottom of each sign installed on a new post shall be at least 7 feet above the nearest edge of pavement, or curb, unless otherwise noted on the sign summary sheets.
8. The contractor shall install the new signs so the nearest edge or corner of each sign is offset 12 feet from the nearest edge of the pavement unless otherwise noted on the sign summary sheets.
9. All new signs shall be fabricated in accordance with Section 608 of the Specifications.
10. All new yellow or yellow-green signs shall have fluorescent sheeting. The retroreflective sheeting, which shall meet criteria established for the sheeting type in accordance with ASTM D4956, shall be as follows:

New regulatory, warning and overhead guide signs
- Type XI sheeting.

New object markers and ground mounted guide signs
- Type IX or XI sheeting.

11. All bolts used to install signing shall have hex heads, not slotted heads, and shall not be painted.
12. The contractor shall use only zinc plated steel washers, not nylon washers, between each bolt head and the face of the sign panel. The washers shall not be painted.
13. All metal hardware shall be either stainless steel or aluminum to prevent rust.
14. Shop drawings will be required for this project.
15. All work shall be performed within the existing ADOT right of way.
16. Sign locations may be modified and adjusted to fit field conditions as approved by the Engineer and approved by North Central Regional Traffic Engineering.
17. The Engineer may modify the signing plans if approved by North Central Regional Traffic Engineering.
18. No separate payment will be made for stringers. The cost is included in the cost of the sign. The contractor shall install stringers where indicated on the signing plans and in accordance with Std. Dwg. S-3 and S-9.
19. The sign drawings shown on the plans are schematic and not to scale.

APPROXIMATE SIGNING QUNATITIES			
ITEM NO.		UNIT	QUANTITY
2020053	Remove (Salvage Existing Sign Panels)	Each	14
2020118	Remove (Signs, Posts & Foundations)	Each	38
6070038	Slip Base	Each	45
6070055	Sign Post (Perforated) (2 1/2S)	L. Ft.	575
6070057	Sign Post (Perforated) (2 1/2T)	L. Ft.	100
6070060	Foundation for Sign Post (Concrete)	Each	55
6080005	Regulatory, Warning, or Marker Sign Panel	Sq. Ft.	325
6080025	Flat Sheet Aluminum Sign Panel	Sq. Ft.	60
6080105	Relocate Signs	L. Sum	1
7030080	Object Marker (M-23)(Type 3)	Each	20
7030095	Milepost Marker (S-10)	Each	8



	NAME	DATE
DESIGN	T Mivshak	5/25
DRAWN	T Mivshak/Q. Zhou	5/25
CHECKED	T Mivshak	5/25
TEAM LEADER	R Gluscevic	5/25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
TRAFFIC DESIGN SECTION

SIGNING NOTES

ROUTE
SR 377

MILEPOST

STRUCTURE NO.

F.H.W.A. Arizona Division

STATE

ARIZ.

PROJECT NO.

377 NA 008

FEDERAL ID NO.

377-A(203)T

SHEET NO.

38

TOTAL SHEETS

48

RECORD DRAWING

LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE

TRACS NO. F0661 01C

SHEET 1 OF 7

___ OF ___

Sign Summary																													
Plan Sheet Number	Sign Number	MOAS Sign Code	Work Existing					Offset (ft.)	Mounting Height	Background Color	Panel						Ground Mounted			Stringer	Overhead	Remarks							
			New	Replace Panel	Relocate Panel	Modify Legend	Remove				To Remain	Legend	Width (in.)	Height (in.)	Area (sq. ft.)	Type	Sheeting Type	Bid Item Number	Post		Foundations		New Slip Bases	Type	Total Length (ft.)	Structure Type			
																			Type	Total Length (ft.)									
	MP N8.00	D10-1					X																						
	-	D10-1					X																						
	MP N8.18a	OM3-R	X						4	YL		Type 3 Object Marker (Right)					IX-XI	7030080					Place at pipe opening						
	MP N8.18b	OM3-L	X						4	YL		Type 3 Object Marker (Left)					IX-XI	7030080					Place at pipe opening						
	MP N8.30	W1-2R	X				X	12	7	YL		Curve (right)	30	30	6.25	RWM	XI	6080005	1	2 1/2T	14	1		Place yellow tape along post facing northbound traffic					
	+	W13-1P	X				X					50 MPH	18	18	2.25	RWM	XI	6080005											
	MP N8.70	W14-3	X				X	12	7	YL		NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2		Facing southbound traffic					
	MP N9.00	D10-1	X				X	12	4	GR		MILE 9					IX-XI	7030095						Back-to-back					
	-	D10-1	X				X		4	GR		MILE 9					IX-XI	7030095											
	+	W11-3	X				X	12	7	YL		Deer	30	30	6.25	RWM	XI	6080005	1	2 1/2S	12								
	MP N9.02a	OM3-R	X						4	YL		Type 3 Object Marker (Right)					IX-XI	7030080						Place at pipe opening					
	MP N9.02b	OM3-L	X						4	YL		Type 3 Object Marker (Left)					IX-XI	7030080						Place at pipe opening					
	MP N9.10	W14-3	X				X	12	7	YL		NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2		Facing southbound traffic					
	MP N9.78	D1-1	X				X	12	7	GR		left arrow Duck Lake Rd	96	18	12.0	F-DA	IX-XI	6080025	2	2 1/2S	23	2	P	7.0					
	MP N9.98	W14-3	X				X	12	7	YL		NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2		Facing southbound traffic					
	MP N10.00	D10-2	X				X	12	4	GR		MILE 10					IX-XI	7030095						Back-to-back					
	-	D10-2	X				X		4	GR		MILE 10					IX-XI	7030095											
	MP N11.00	D10-2	X				X	12	4	GR		MILE 11					IX-XI	7030095						Back-to-back					
	-	D10-2	X				X		4	GR		MILE 11					IX-XI	7030095											
	MP N11.11a	OM3-R	X						4	YL		Type 3 Object Marker (Right)					IX-XI	7030080						Place at pipe opening					
	MP N11.11b	OM3-L	X						4	YL		Type 3 Object Marker (Left)					IX-XI	7030080						Place at pipe opening					
NOTES: 1. The contractor shall verify post lengths, sign location, installation angle, offset and mounting height for Engineer's approval. 2. The Engineer may shift signs in order to achieve a more desirable location. 3. Quantities are approximate and for the contractor's information only.										PANEL TYPES: RWM: Regulatory, Warning, or Marker F-DA: Flat-sheet aluminum with direct applied F-DEM: Flat-sheet aluminum with demountable characters EXT: Aluminum extrusions					BACKGROUND COLORS: FGR = Fluorescent Green BK = Black BL = Blue GR = Green YL = Fluorescent Yellow BR = Brown WH = White OR = Orange RD = Red					POST TYPES: 2S: 2" Single Perforated 2 1/2S: 2 1/2" Single Perforated 2T: 2" Telescoping 2 1/2T: 2 1/2" Telescoping S4 x 7.7: Breakaway W6 x 9: Breakaway W8 x 18: Breakaway W10 x 22: Breakaway					STRINGER TYPES: P: Square-tube post T: T-section (WT 3 x 6)				

	DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING	
	DRAWN	T Mivshak/Q. Zhou	5/25		SR 377								
	CHECKED	T Mivshak	5/25		MILEPOST								
	TEAM LEADER	R Gluscevic	5/25		STRUCTURE NO.								
				SIGN SUMMARY SR 377 NORTHBOUND									
						LOCATION			MP 8 - PHOENIX PARK WASH, S OF DRY LAKE			SHEET 2 OF 7	
						TRACS NO.			F0661 01C			____ OF ____	

Sign Summary																																												
Plan Sheet Number	Sign Number	MOAS Sign Code	Work Existing					Offset (ft.)	Mounting Height	Background Color	Panel						Ground Mounted			Stringer	Overhead	Remarks																						
			New	Replace Panel	Relocate Panel	Modify Legend	Remove				To Remain	Legend	Width (in.)	Height (in.)	Area (sq. ft.)	Type	Sheeting Type	Bid Item Number	Foundations	Post			New Slip Bases	Type	Total Length (ft.)	Structure Type																		
																				Type	Total Length (ft.)																							
	MP N11.41	W8-102	X				X		12	7	YL	WATCH FOR WATER ON ROAD	36	36	9.0	RWM	XI	6080005	1	2 1/2T	12	1					Move existing light to new post																	
	MP N11.54a	OM3-R	X							4	YL	Type 3 Object Marker (Right)					IX-XI	7030080									Place at pipe opening																	
	MP N11.54b	OM3-L	X							4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening																	
	MP N11.84	D1-1	X				X		12	7	GR	Zeniff Rd right arrow	72	18	9.0	F-DA	IX-XI	6080025	2	2 1/2 S	23	2	P	5.0																				
	+	W14-3	X				X		12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2 S	24	2					Facing southbound traffic																	
	MP N11.94	Special			X							SR 377						6080105									Relocate blades to new post																	
	+	Special			X							ZENIFF RD						6080105									Relocate blades to new post																	
	+	R1-1	X				X		12	7	RD	STOP	36	36	9.0	RWM	XI	6080005	1	2 1/2T	14	1																						
	MP N12.00	D10-2	X				X		12	4	GR	MILE 12					IX-XI	7030095									Back-to-Back																	
	-	D10-2	X				X			4	GR	MILE 12					IX-XI	7030095																										
	+	D14-101	X				X		12	7	WH	ADOPT-A-HIGHWAY	24	12	2.0	F-DA	IX-XI	6080025	1	2 1/2S	13																							
	MP N12.04	W14-3	X				X		12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2					Facing southbound traffic																	
	MP N12.39a	OM3-R	X							4	YL	Type 3 Object Marker (Right)					IX-XI	7030080									Place at pipe opening																	
	MP N12.39b	OM3-L	X							4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening																	
	MP N12.40	W8-18aAZ	X				X		12	7	YL	FLASH FLOOD AREA	36	36	9.0	RWM	XI	6080005	1	2 1/2S	12																							
	MP N12.62	W8-103	X				X		12	7	YL	DO NOT ENTER WHEN FLOODED	48	24	8.0	RWM	XI	6080005	2	2 1/2S	23	2																						
	MP N12.76	I-3	X				X		12	7	GR	Pulp Mill Wash	36	18	4.5	F-DA	IX-XI	6080025	1	2 1/2S	11																							
	MP N13.00	D10-2					X					MILE 13																																
	-	D10-2					X					MILE 13																																
	+	D14-101					X					ADOPT-A-HIGHWAY																																
NOTES:												PANEL TYPES:						BACKGROUND COLORS:						POST TYPES:						STRINGER TYPES:														
1. The contractor shall verify post lengths, sign location, installation angle, offset and mounting height for Engineer's approval. 2. The Engineer may shift signs in order to achieve a more desirable location. 3. Quantities are approximate and for the contractor's information only.												RWM: Regulatory, Warning, or Marker F-DA: Flat-sheet aluminum with direct applied F-DEM: Flat-sheet aluminum with demountable characters EXT: Aluminum extrusions						FGR = Fluorescent Green BK = Black BL = Blue GR = Green YL = Fluorescent Yellow BR = Brown WH = White OR = Orange RD = Red						2S: 2" Single Perforated 2 1/2S: 2 1/2" Single Perforated 2T: 2" Telescoping 2 1/2T: 2 1/2" Telescoping S4 x 7.7: Breakaway W6 x 9: Breakaway W8 x 18: Breakaway W10 x 22: Breakaway						P: Square-tube post T: T-section (WT 3 x 6)														
												DESIGN			NAME			DATE			ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION						ROUTE		SR 377		F.H.W.A. Arizona Division		STATE		PROJECT NO.		FEDERAL ID NO.		SHEET NO.		TOTAL SHEETS		RECORD DRAWING	
												DRAWN			T Mivshek/Q. Zhou			5/25									MILEPOST																	
												CHECKED			T Mivshek			5/25			SIGN SUMMARY SR 377 NORTHBOUND						STRUCTURE NO.		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE TRACS NO. F0661 01C															
												TEAM LEADER			R Gluscevic			5/25																										

Sign Summary																																		
Plan Sheet Number	Sign Number	MOAS Sign Code	Work					Mounting Height	Background Color	Panel	Ground Mounted					Stringer		Overhead		Remarks														
			New	Replace Panel	Relocate Panel	Modify Legend	Remove				To Remain	Offset (ft.)	Foundations	Post		New Slip Bases	Type	Total Length (ft.)	Structure Type															
														Type	Total Length (ft.)																			
										Legend	Width (in.)	Height (in.)	Area (sq. ft.)	Type	Sheeting Type	Bid Item Number																		
										Southbound																								
	MP S8.18a	OM3-R	X						4	YL	Type 3 Object Marker (Right)				IX-XI	7030080						Place at pipe opening												
	MP S8.18b	OM3-L	X						4	YL	Type 3 Object Marker (Left)				IX-XI	7030080						Place at pipe opening												
	MP S8.25	W14-3	X				X		12	7	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2	Facing northbound traffic												
	MP S8.38	W8-103	X				X		12	7	DO NOT ENTER WHEN FLOODED	48	24	8.0	RWM	XI	6080005	2	2 1/2S	23	2													
	MP S8.43	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.45	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.47	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.49	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.51	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.53	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.55	W1-8L	X				X		12	7	Chevron (left)	18	24	3.0	RWM	XI	6080005	1	2 1/2S	11		Back-to-Back, Place yellow tape along both sides of post												
	-	W1-8R	X				X				Chevron (right)	18	24	3.0	RWM	XI	6080005																	
	MP S8.62	W1-2	X				X		12	7	Curve (left)	30	30	6.25	RWM	XI	6080005	1	2 1/2T	14	1	Place yellow tape along post facing southbound traffic												
	+	W13-1P	X				X				50 MPH	18	18	2.25	RWM	XI	6080005																	
	MP S8.70	W8-102	X				X		12	7	WATCH FOR WATER ON ROAD	36	36	9.0	RWM	XI	6080005	1	2 1/2T	12	1	Move existing light to new post, Remove existing at MP S8.58												
	MP S8.78	W14-3	X				X		12	7	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2	Facing northbound traffic												
NOTES: 1. The contractor shall verify post lengths, sign location, installation angle, offset and mounting height for Engineer's approval. 2. The Engineer may shift signs in order to achieve a more desirable location. 3. Quantities are approximate and for the contractor's information only.										PANEL TYPES: RWM: Regulatory, Warning, or Marker F-DA: Flat-sheet aluminum with direct applied F-DEM: Flat-sheet aluminum with demountable characters EXT: Aluminum extrusions										BACKGROUND COLORS: FGR = Fluorescent Green BK = Black BL = Blue GR = Green YL = Fluorescent Yellow BR = Brown WH = White OR = Orange RD = Red					POST TYPES: 2S: 2" Single Perforated 2 1/2S: 2 1/2" Single Perforated 2T: 2" Telescoping 2 1/2T: 2 1/2" Telescoping S4 x 7.7: Breakaway W6 x 9: Breakaway W8 x 18: Breakaway W10 x 22: Breakaway					STRINGER TYPES: P: Square-tube post T: T-section (WT 3 x 6)				

	DESIGN	T Mivshek	5/25	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE	ARIZ.	PROJECT NO.	377 NA 008	FEDERAL ID NO.	377-A(203)T	SHEET NO.	41	TOTAL SHEETS	48	RECORD DRAWING
	DRAWN	T Mivshek/Q. Zhou	5/25		MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE								SHEET 4 OF 7				
	CHECKED	T Mivshek	5/25		STRUCTURE NO.	TRACS NO. F0661 01C								OF				
	TEAM LEADER	R Gluscevic	5/25															

Sign Summary																												
Plan Sheet Number	Sign Number	MOAS Sign Code	Work Existing					Offset (ft.)	Mounting Height	Background Color	Panel						Ground Mounted				Stringer		Overhead		Remarks			
			New	Replace Panel	Relocate Panel	Modify Legend	Remove				To Remain	Legend	Width (in.)	Height (in.)	Area (sq. ft.)	Type	Sheeting Type	Bid Item Number	Foundations	Post		New Slip Bases	Type	Total Length (ft.)		Structure Type		
																				Type	Total Length (ft.)							
	MP S9.02	OM3-R	X						4	YL	Type 3 Object Marker (Right)					IX-XI	7030080									Place at pipe opening		
	MP S9.02	OM3-L	X						4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening		
	MP S9.77	W14-3	X				X		12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2				Facing northbound traffic		
	MP S9.87	Special			X						SR 377						6080105									Relocate blades to new sign post		
	+	Special			X						DUCK LAKE RD						6080105									Relocate blades to new sign post		
	+	R1-1	X				X		12	7	RD	STOP	36	36	9.0	RWM	XI	6080005	1	2 1/2T	14	1						
	MP S9.97	D1-1	X				X		12	7	GR	Duck Lake Rd right arrow	96	18	12.0	F-DA	IX-XI	6080025	2	2 1/2S	23	2	P	7.0				
	MP S11.11a	OM3-R	X						4	YL	Type 3 Object Marker (Right)					IX-XI	7030080									Place at pipe opening		
	MP S11.11b	OM3-L	X						4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening		
	MP S11.47	W14-3	X				X		12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005								Facing northbound traffic		
	MP S11.54a	OM3-R	X						4	YL	Type 3 Object Marker (Right)					IX-XI	7030080	2	2 1/2 S	24	2					Place at pipe opening		
	MP S11.54b	OM3-L	X						4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening		
	MP S11.83	W14-3	X						12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2				Facing northbound traffic		
	MP S11.94	R1-1	X				X		12	7	RD	STOP	36	36	9.0	RWM	XI	6080005	1	2 1/2T	12	1						
	MP S12.03	D1-1	X				X		12	7	GR	left arrow Zeniff Rd	72	18	9.0	F-DA	IX-XI	6080025	2	2 1/2S	23	2	P	5.0				
	MP S12.39	OM3-R	X						4	YL	Type 3 Object Marker (Right)					IX-XI	7030080									Place at pipe opening		
	MP S12.39b	OM3-L	X						4	YL	Type 3 Object Marker (Left)					IX-XI	7030080									Place at pipe opening		
	MP S12.76	W14-3	X				X		12	7	YL	NO PASSING ZONE	48	36	16.0	RWM	XI	6080005	2	2 1/2S	24	2				Facing northbound traffic		
	MP S12.86	I-3	X				X		12	7	GR	Pulp Mill Wash	36	18	4.5	F-DA	XI	6080025	1	2 1/2S	11							
NOTES:											PANEL TYPES:						BACKGROUND COLORS:				POST TYPES:				STRINGER TYPES:			
1. The contractor shall verify post lengths, sign location, installation angle, offset and mounting height for Engineer's approval. 2. The Engineer may shift signs in order to achieve a more desirable location. 3. Quantities are approximate and for the contractor's information only.											RWM: Regulatory, Warning, or Marker F-DA: Flat-sheet aluminum with direct applied F-DEM: Flat-sheet aluminum with demountable characters EXT: Aluminum extrusions						FGR = Fluorescent Green BK = Black BL = Blue GR = Green YL = Fluorescent Yellow BR = Brown WH = White OR = Orange RD = Red				2S: 2" Single Perforated 2 1/2S: 2 1/2" Single Perforated 2T: 2" Telescoping 2 1/2T: 2 1/2" Telescoping S4 x 7.7: Breakaway W6 x 9: Breakaway W8 x 18: Breakaway W10 x 22: Breakaway				P: Square-tube post T: T-section (WT 3 x 6)			
											DESIGN		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION				ROUTE		F.H.W.A. Arizona Division		STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
DRAWN		T Mivshek	5/25	SIGN SUMMARY SR 377 SOUTHBOUND				SR 377		ARIZ.		377 NA 008		377-A(203)T		42	48											
CHECKED		T Mivshek	5/25					MILEPOST		LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE										SHEET 5 OF 7								
TEAM LEADER		R Gluscevic	5/25					STRUCTURE NO.		TRACS NO. F0661 01C										___ OF ___								

[illegible]

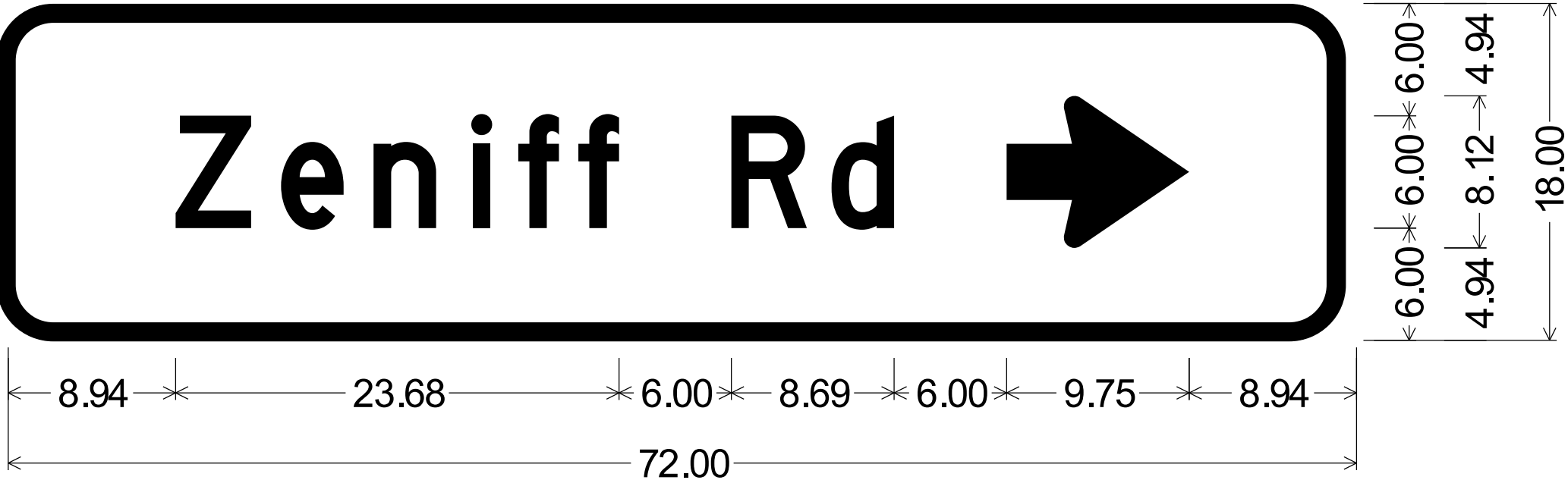
Technical drawing of a rectangular street sign with rounded corners. The sign features a black arrow pointing left and the text "Duck Lake Rd" in a bold, sans-serif font. The drawing includes detailed dimensions for the sign's components and overall size.

Sign Content: ← Duck Lake Rd

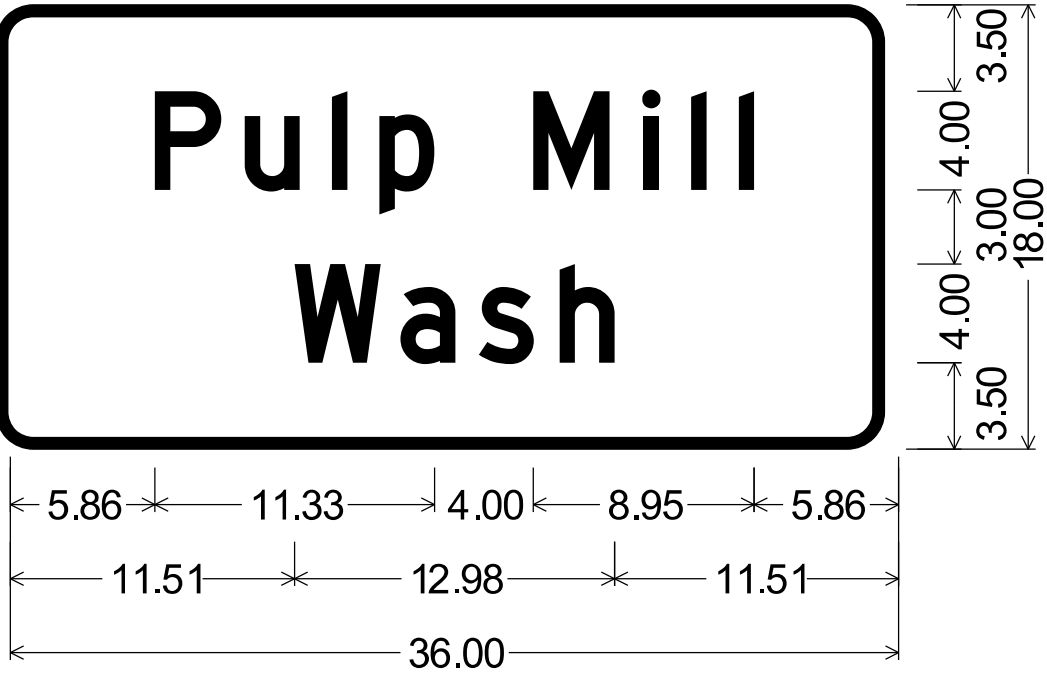
Dimensions (inches):

- Overall Width:** 96.00
- Overall Height:** 18.00
- Arrow Width:** 11.41
- Arrow Height:** 4.94
- Text "Duck" Width:** 18.94
- Text "Lake" Width:** 17.79
- Text "Rd" Width:** 8.70
- Text "Duck" Height:** 6.00
- Text "Lake" Height:** 6.00
- Text "Rd" Height:** 6.00
- Sign Body Width (excluding arrow):** 84.59 (96.00 - 11.41)
- Sign Body Height (excluding arrow):** 13.06 (18.00 - 4.94)

NB MP 11.84



NB MP 12.76, SB MP 12.86



1.50" Radius, 0.50" Border, White on Green;
"Pulp Mill", D; "Wash", D;

Technical drawing of a street sign for Duck Lake Rd. The sign is rectangular with rounded corners and a black border. The text "Duck Lake Rd" is in a large, bold, sans-serif font, followed by a black right-pointing arrow. Dimensions are provided in feet and inches (ft-in).

Sign Dimensions:

- Overall width: 96.00 ft
- Overall height: 18.00 ft
- Text/Arrow area width: 88.00 ft (96.00 ft - 4.00 ft - 4.00 ft)
- Text/Arrow area height: 12.00 ft (18.00 ft - 6.00 ft)
- Text/Arrow area text: Duck Lake Rd →

Mounting Dimensions:

- Mounting holes are spaced 6.00 ft apart.
- Mounting holes are 4.94 ft from the top and bottom edges.
- Mounting holes are 11.41 ft from the left and right edges.

SB MP 12.03



3.00" Radius, 1.00" Border, White on Green;
Arrow 6" Type D1 - 180°; "Zeniff Rd", D;

		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION TRAFFIC DESIGN SECTION	ROUTE	F.H.W.A. Arizona Division	STATE	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	T Mivshek	5/25		SR 377		ARIZ.	377 NA 008	377-A(203)T	44	48	
	DRAWN	T Mivshek/Q. Zhou	5/25		SIGN FORMAT	MILEPOST	LOCATION MP 8 - PHOENIX PARK WASH, S OF DRY LAKE SHEET 7 OF 7					
	CHECKED	T Mivshek	5/25			STRUCTURE NO.						
	TEAM LEADER	R Gluscevic	5/25									

CONTROL MEASURE INDEX SHEET (CMIS)

TO BE COMPLETED FOR PROJECT WITH ONE (1) ACRE OR MORE OF SOIL/GROUND DISTURBANCE Outside of Jurisdictional Waters of the U.S. (≥1 ACRE*)

* For projects that meet the definition of maintenance under AZPDES CGP, the permit threshold is five (≥5) Acres. Consult with ADOT EP Water Resources Management to define Jurisdictional Waters of the U. S.

I. PROJECT DESCRIPTION

A. Owner Name and Address:

Arizona Department of Transportation
205 South 17th Avenue
Phoenix, Arizona 85007-3213

B. Project TRACS Number: F0661 01C

C. Project Name/Location (be consistent with the plan set cover sheet):

SR-377, MP8 - PHOENIX PARK WASH, S OF DRY LAKE
(MP 8.00 to MP 13.00)

City: County: Navajo

Beginning Latitude (NAD 83): 34°33'49.9608"

Beginning Longitude (NAD 83): -110°24'50.1768"

Ending Latitude (NAD 83): 34°37'27.0984"

Ending Longitude (NAD 83): -110°22'01.9920"

To obtain the project latitude/longitude data, refer to the Flash Earth web link below (Bing Maps with labels):

http://www.flashearth.com/

D. Project Description:

Pavement preservation, shoulder, and rumble strip project on SR-377 between MP 08 and MP 13.

II. HYDROLOGIC INFORMATION

A. Percentage of the site that is impervious before and after construction:

Percentage before Construction: 12.23%

Percentage after Construction: 17.04%

B. Receiving Water(s), refer to the plan set cover sheet and the NHD Plus HR Availability Map Web Link below:

https://usgs.maps.arcgis.com/apps/MapTools/index.html?appid=41a5c2ca49bd4a83b239450e61022d53

(If unnamed, state as unnamed)

Scott Wash & Phoenix Park Wash

III. SOIL STABILIZATION MEASURES

- All disturbed soil, which will not be paved, ripped or otherwise covered to prevent erosion, will be revegetated and/or landscaped in accordance with the project plans and specifications.

IV. MEASURES TO CONTROL STORMWATER AND AIR QUALITY

A. Temporary Stormwater and Air Quality Control Measures (CMs) / Best Management Practices (BMPs)

- Temporary Diversion Dikes
Temporary Rock Check Dams
Stabilized Construction Entrance/Exit Gravel Pad
Soil Stabilizer for Wind Erosion and Dust Control
Rock Inlet/Outlet Protection
Sediment Control Berms
Silt Fences
Wattles (Excelsior/Straw/Compost)
Excelsior Logs / Sediment Logs
Erosion Control Matting
Seeding (Class II with final mulch cover)
Gravelbag
Catch Basin Temporary Fabric Filter
Designated Washout Areas
Protected Chemical and Material Storage Area
Equipment Maintenance Procedures
Others Describe:

The contractor shall install Rock Check Dams (Item 8101005) as temporary ditch check dams within the new roadside ditches along both sides of the SR—377, at about 300-foot intervals. See project special provisions.

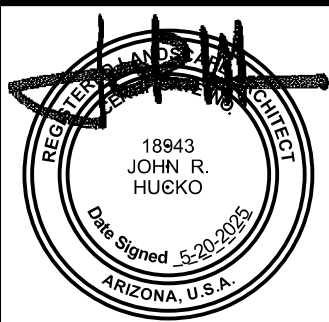
The contractor shall also flatten / re-grade Rock Check Dams to the finished ditch grade, grade back, and level Check Dams within the ditch, as soon as practicable, when the project site achieves Final Stabilization as approved by the Engineer.

After evaluated and approved by the Engineer, the contractor shall remove temporary stormwater quality protection CMs/BMPs if they interfere with safety, construction, structure, designed drainage capacity, and/or roadway/pavement features.

B. Permanent and Post-construction Stormwater and Air Quality Control Measures (CMs) / Best ManagementPractices (BMPs):

- Crown Ditch/Dike
Rock Protection
Rock Riprap Channel Lining
Sediment Basin
Embankment Curb
Spillways
Downdrains
Minibenching
Solid Waste Management
**Rock-filled Stormwater Infiltration CM/BMP as Infiltration Basin and/or Trench
**Filtration Structures
**Infiltration Basin and/or Trench
**Retention and/or Detention Basins
**Bioretention
**Manufactured Treatment Devices
Seeding established as a perennial vegetative cover with a density of 70% of the native background vegetative cover.
Others Describe:

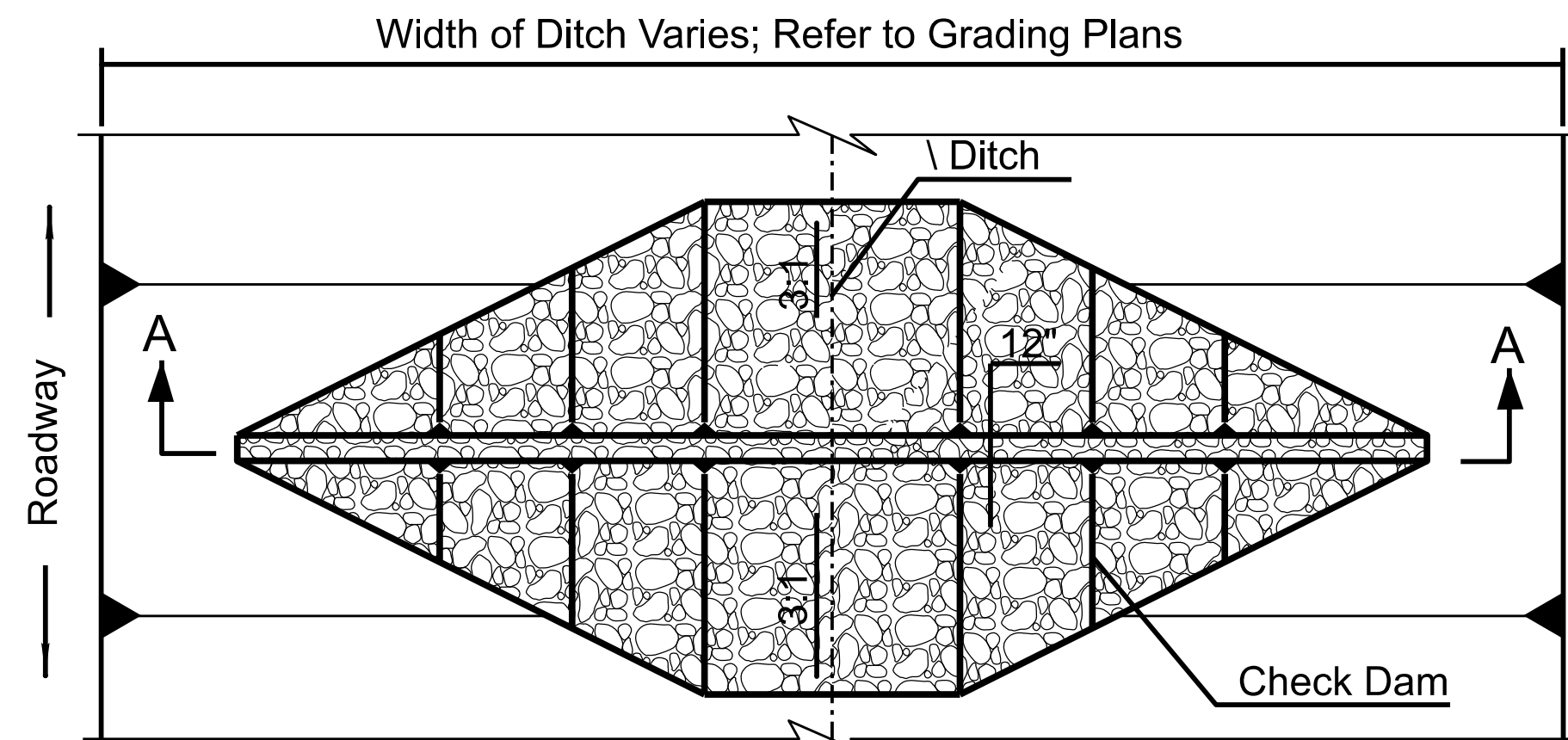
** Track and report to ADOT EP Water Resources Management: ADOTWater@azdot.gov



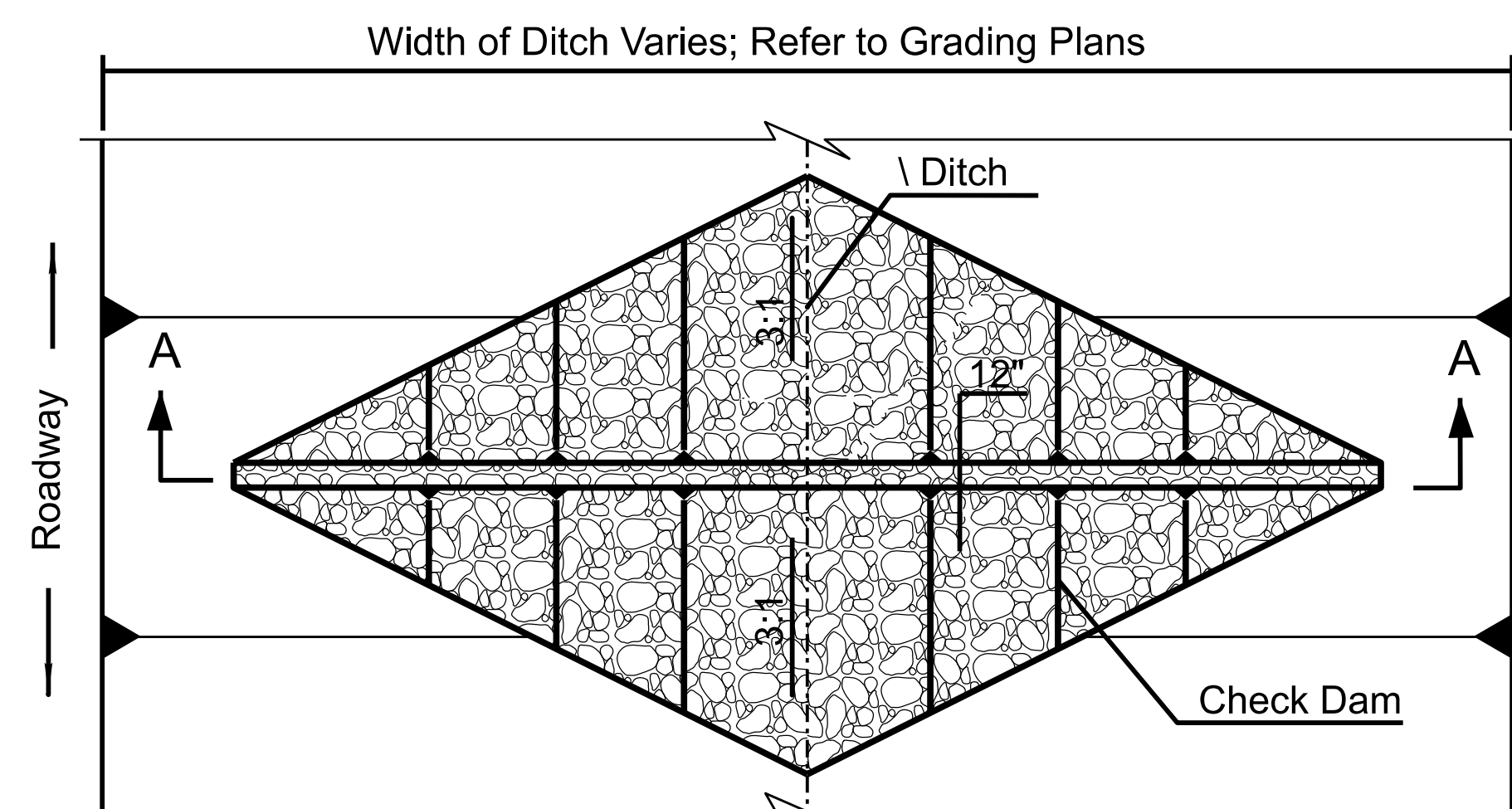
	NAME	DATE
DESIGN	TAO ZI FONG	05-25
DESIGN	Z. H. F.	05-25
DRAWN	TAO ZI FONG	05-25
DRAWN	Z. H. F.	05-25
CHECKED	JOHN R. HUCKO	05-25
TEAM LEADER	E. LEROY BRADY	05-25

ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADSIDE DEVELOPMENT SECTION
STORMWATER & AIR QUALITY CONTROL MEASURE INDEX SHEET (CMIS)

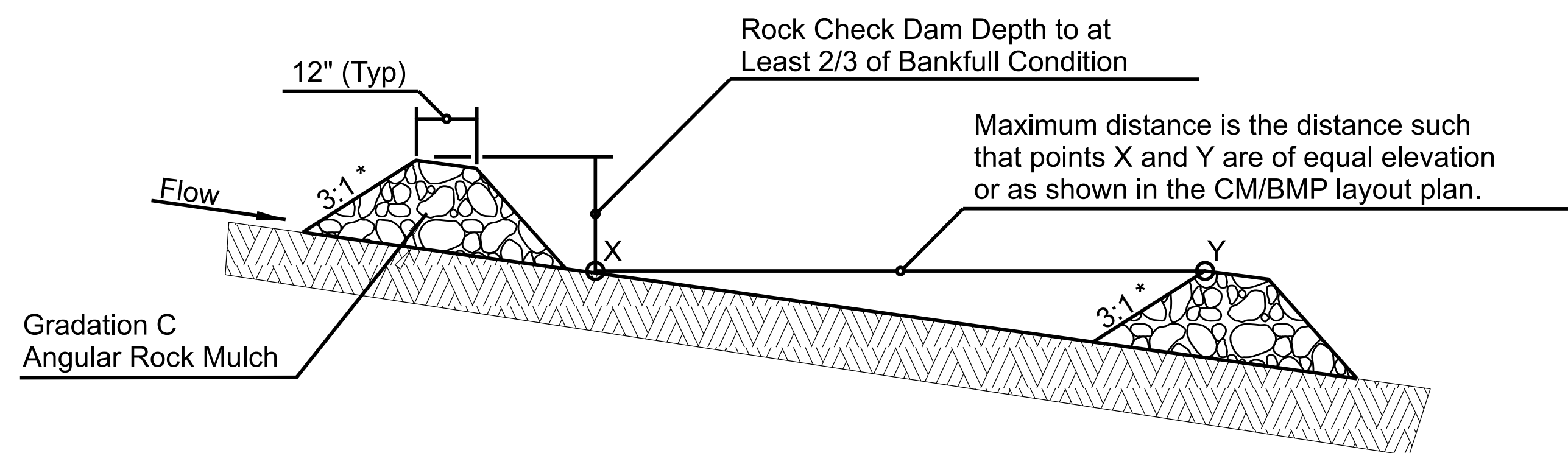
ROUTE SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 45	TOTAL SHEETS 48	RECORD DRAWING
MILEPOST	LOCATION MP8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 1	
STRUCTURE NO.	TRACS NO. F0661 01C					OF	



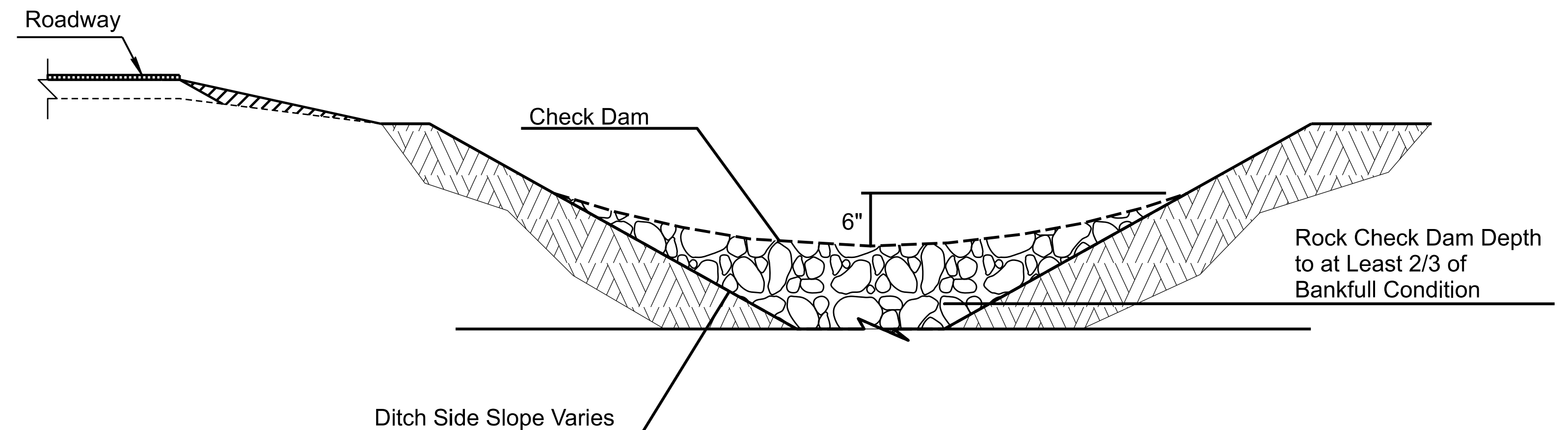
TRAPEZOIDAL DITCH PLAN (NTS)



V-DITCH PLAN (NTS)



ELEVATION ALONG DITCH SLOPE (NTS)



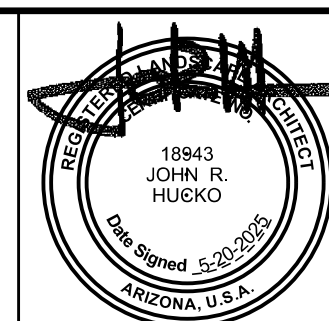
SECTION A-A
TRAPEZOIDAL- OR V-DITCH
(NTS)

NOTES:

1. Construct Rock Check Dams with angular-shaped Gradation C Rock Mulch as defined in Section 810-2.03 of the Specifications and these special provisions. Natural river-run materials such as rounded river rocks/cobblestones and pebbles are NOT acceptable.
2. * Slope shall be 1(V) : 6(H) or flatter if Check Dam is within the traffic clear zone/recovery areas as defined in ADOT Roadway Design Guidelines (303.2 to 303.3 Roadside Recovery Area).
3. Make field adjustments of sizing and spacing of Rock Check Dams as necessary for traffic safety as well as proper functioning of the drainage facilities.
4. Flatten and re-grade Rock Check Dams to the finished grade, level within the ditch, as soon as practicable for Final Stabilization.
5. Make field adjustments and corrections of Rock Check Dam CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
6. Make field adjustments to ensure the top of the Rock Check Dam is approximately 2/3 height of the estimated ditch bankfull level.
7. When paid separately, the Rock Check Dam CM/BMP pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintenance, flattening/grading back to the finished grade, as well as returning the area to an acceptable condition as approved by the Engineer.
8. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.

DETAIL ES1

ROCK CHECK DAM

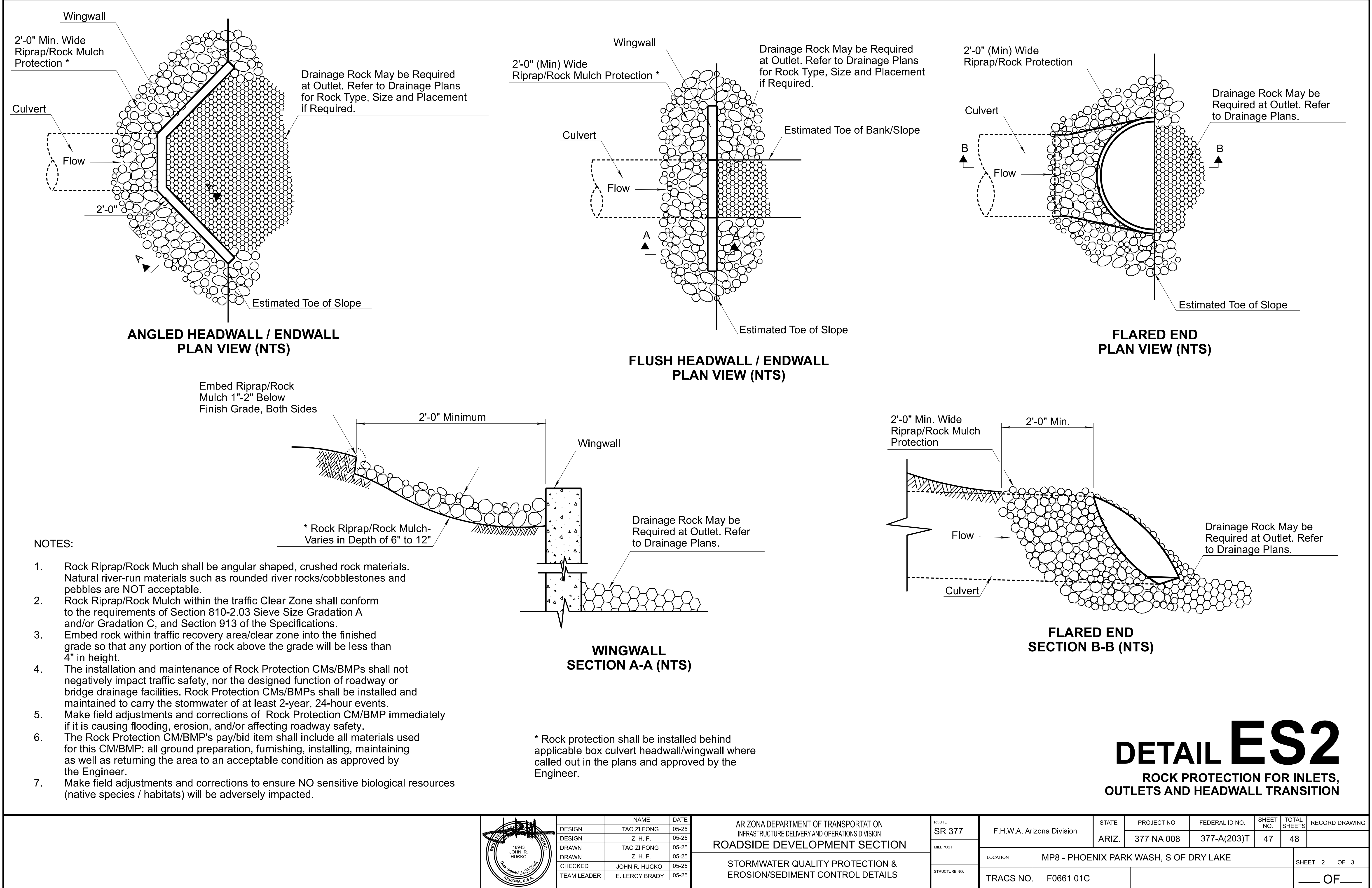


	NAME	DATE
DESIGN	TAO ZI FONG	05-25
DESIGN	Z. H. F.	05-25
DRAWN	TAO ZI FONG	05-25
DRAWN	Z. H. F.	05-25
CHECKED	JOHN R. HUCKO	05-25
TEAM LEADER	E. LEROY BRADY	05-25

ARIZONA DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION
ROADSIDE DEVELOPMENT SECTION

STORMWATER QUALITY PROTECTION &
EROSION/SEDIMENT CONTROL DETAILS

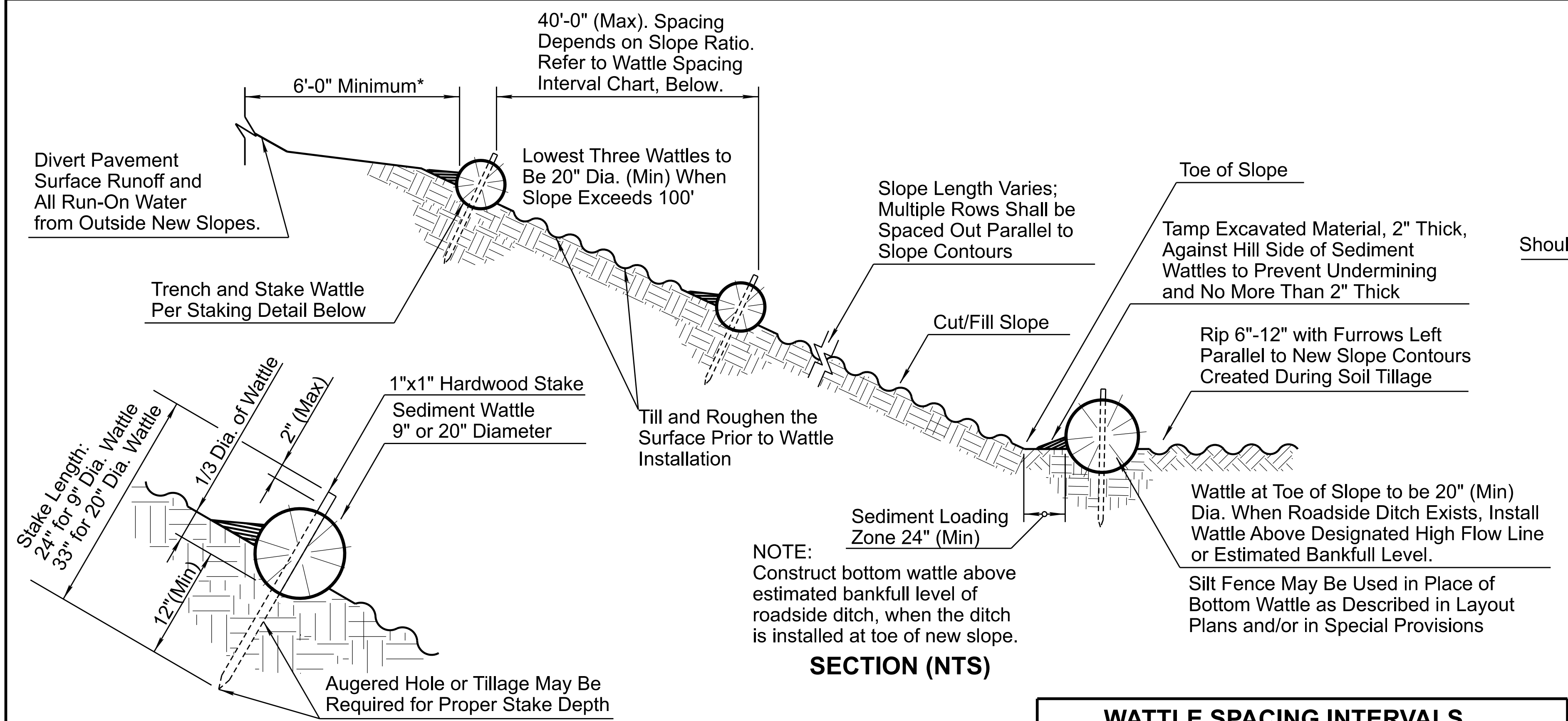
ROUTE SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO. 377 NA 008	FEDERAL ID NO. 377-A(203)T	SHEET NO. 46	TOTAL SHEETS 48	RECORD DRAWING
MILEPOST	LOCATION MP8 - PHOENIX PARK WASH, S OF DRY LAKE					SHEET 1 OF 3	
STRUCTURE NO.	TRACS NO. F0661 01C					___ OF ___	



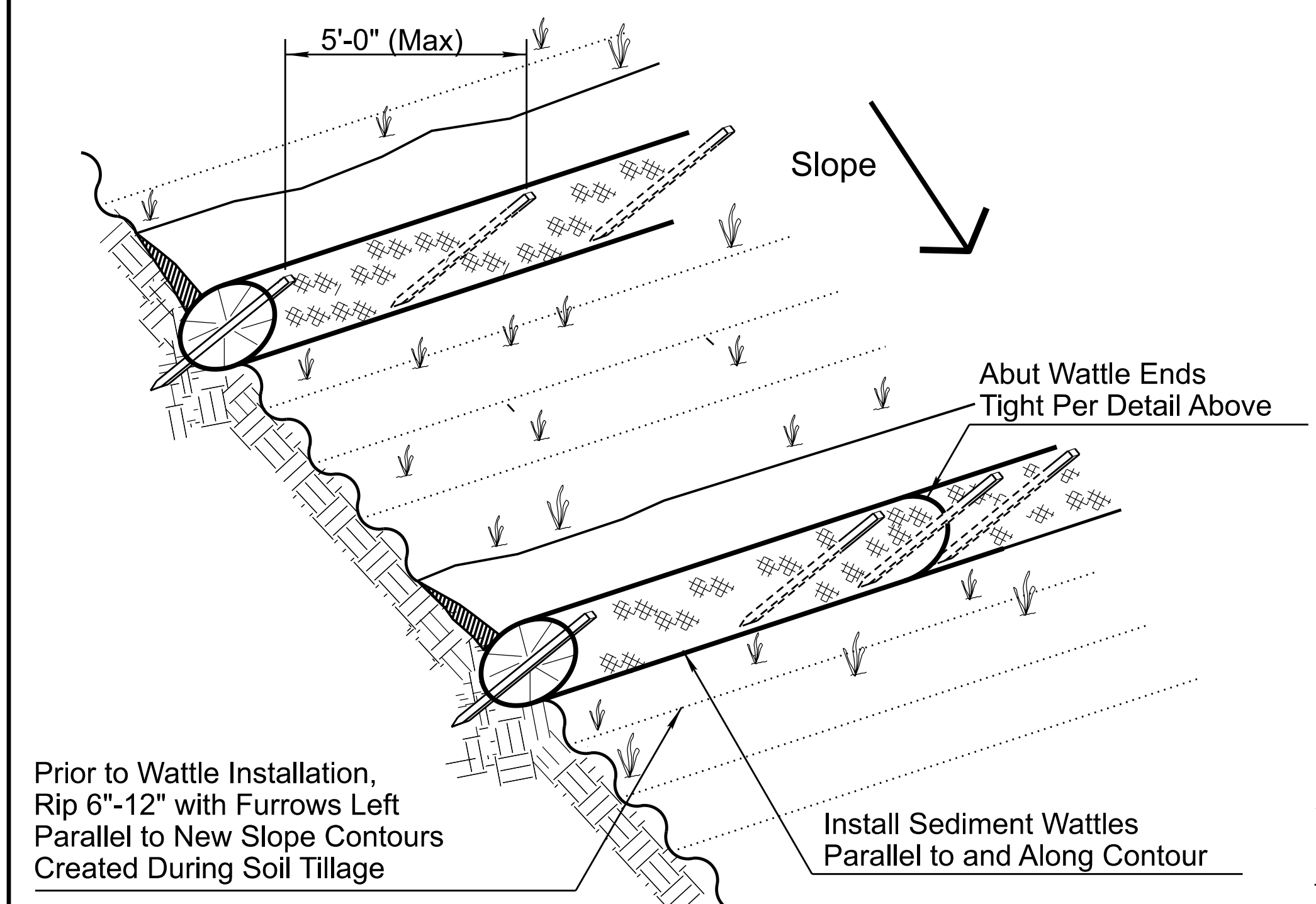
DETAIL ES2

ROCK PROTECTION FOR INLETS, OUTLETS AND HEADWALL TRANSITION

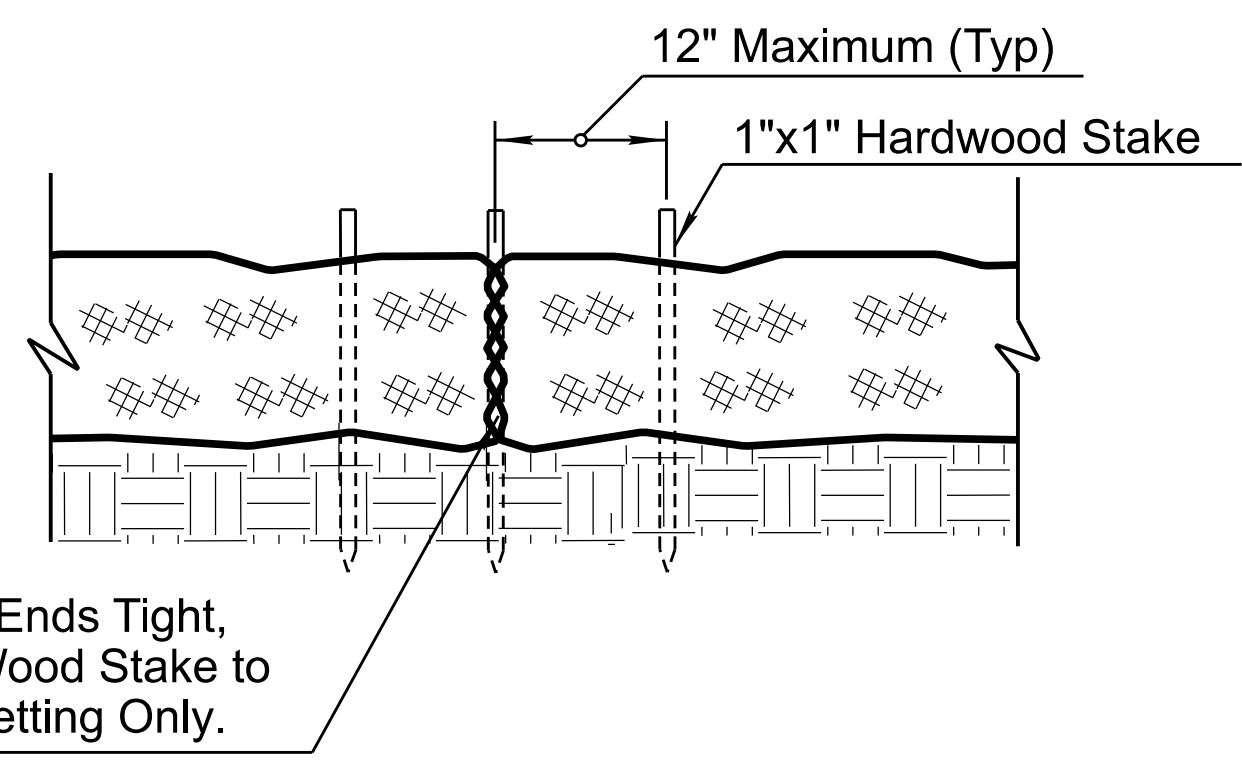
		NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADSIDE DEVELOPMENT SECTION		ROUTE	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	TAO ZI FONG	05-25	STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS	SR 377								
	DESIGN	Z. H. F.	05-25		MILEPOST								
	DRAWN	TAO ZI FONG	05-25		STRUCTURE NO.	LOCATION MP8 - PHOENIX PARK WASH, S OF DRY LAKE SHEET 2 OF 3							
	DRAWN	Z. H. F.	05-25			TRACS NO. F0661 01C ____ OF ____							
	CHECKED	JOHN R. HUCKO	05-25										
TEAM LEADER	E. LEROY BRADY	05-25											



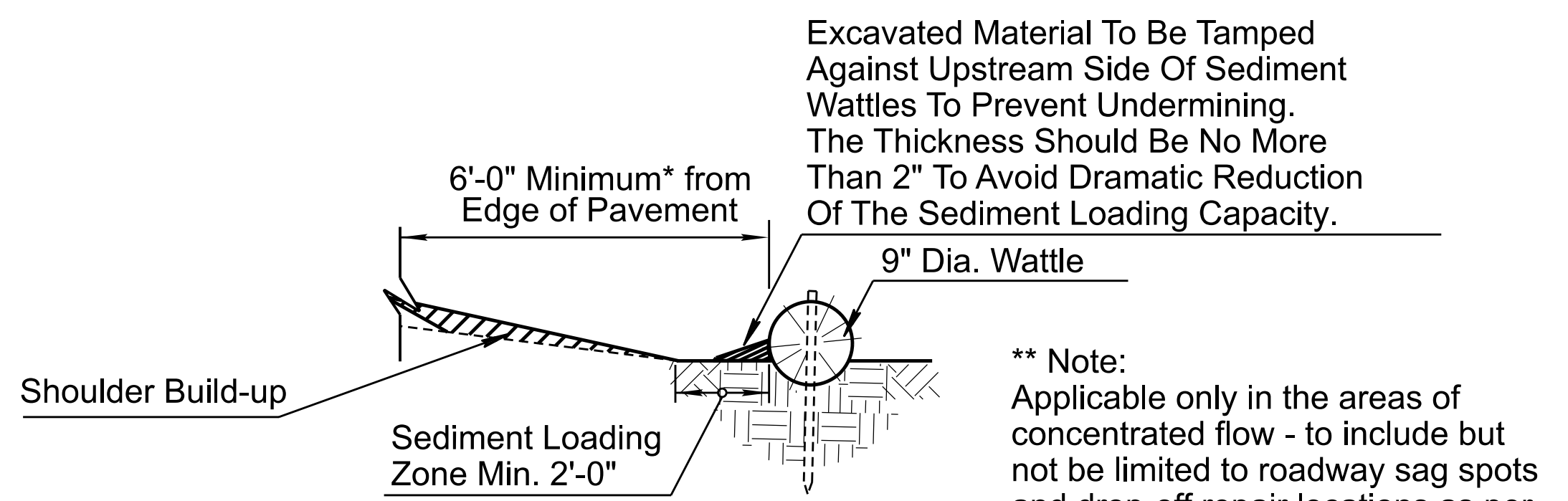
SEDIMENT WATTLE STAKING
DETAIL (NTS)



SEDIMENT WATTLE
LAYOUT (NTS)



SEDIMENT WATTLE
OVERLAP (NTS)



NEW SHOULDER BUILDUP **
PROTECTION SECTION (NTS)

NOTES:

1. Install Sediment Wattles as slopes are constructed to grade or as directed by the Engineer. Select, install and maintain in conformance with manufacturers' specifications to meet site conditions for slope protection and in accordance with good engineering practices. No Sediment Wattles shall be installed in urban freeway medians, nor where cable barrier systems are employed.
2. Sediment Wattles shall be in continuous contact with trench bottom and sides. Do not overlap wattle ends on top of each other. A 20" Dia. wattle may be made from 2-3 rolled excelsior or straw blankets.
3. Butt adjoining wattles tightly against each other. Drive the first end stake of the second wattle at an angle toward the first wattle to help abut them tightly.
4. Repair any rills or gullies promptly. Make field adjustments and corrections of Wattle CM/BMP immediately if it is causing flooding, erosion, and/or affecting roadway safety.
5. Construction of cut slopes 2:1 and steeper in soil and rock materials that can be ripped shall be constructed, whenever possible, by Minibenching. Refer to Slope Minibenching CM/BMP Detail.
6. Loosening surface soil is not required where Minibenches are used. For seeded areas, tillage shall be performed to form minor ridges and furrows parallel to new slope contours and as specified in Section 805 of the Specifications and these project special provisions. Divert and direct run-on water from outside of the slopes to the spillways and/or rock riprap/rock mulch. Diversion dikes and/or ditches are necessary on natural undisturbed slopes beyond the top limits of new slopes to divert run-on water.
7. Installation and maintenance of Sediment Wattle CMs/BMPs shall not negatively impact traffic safety, nor the designed function of roadway or bridge drainage facilities.
8. Install and maintain Sediment Wattle CMs/BMPs to carry the stormwater of at least 2-year, 24-hour events.
9. The Sediment Wattle CM/BMP's pay/bid item shall include all materials used for this CM/BMP: all ground preparation, furnishing, installing, maintenance, final removal, and disposal of this temporary CM/BMP, as well as returning the area to an acceptable condition as approved by the Engineer.
10. Refer to Specification Section 810-2.06(C) for Sediment Wattle material specifications.
11. Make field adjustments and corrections to ensure NO sensitive biological resources (native species / habitats) will be adversely impacted.
- 12.

WATTLE SPACING INTERVALS	
Slope Ratio (H:V)	Maximum Spacing Interval
2:1	10'
3:1	20'
4:1	30'
5:1	40'
6:1	40'

- * Notes:
- 1) Top Row Shall Not be Placed within 6'-0" of Edge of Pavement and 9'-0" from Outside Surface of Barrier.
 - 2) For erosive soils, place rows of wattles closer together.
 - 3) For soils with low erosive potential, place rows of wattles further apart.

DETAIL **ES3**
SEDIMENT WATTLE

	DESIGN	NAME	DATE	ARIZONA DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE DELIVERY AND OPERATIONS DIVISION ROADSIDE DEVELOPMENT SECTION	ROUTE	SR 377	F.H.W.A. Arizona Division	STATE ARIZ.	PROJECT NO.	FEDERAL ID NO.	SHEET NO.	TOTAL SHEETS	RECORD DRAWING
	DESIGN	Z. H. F.	05-25		377 NA 008				377-A(203)T	48	48		
	DRAWN	TAO ZI FONG	05-25	STORMWATER QUALITY PROTECTION & EROSION/SEDIMENT CONTROL DETAILS	MILEPOST	LOCATION MP8 - PHOENIX PARK WASH, S OF DRY LAKE							SHEET 3 OF 3
	DRAWN	Z. H. F.	05-25			TRACS NO. F0661 01C							___ OF ___
	CHECKED	JOHN R. HUCKO	05-25										
	TEAM LEADER	E. LEROY BRADY	05-25										